

Question Paper

Security Analysis – II (MSF2D2) : July 2008

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*

1. India is the second-largest producer of cement in the world after China. This industry is highly cyclical in nature and depends largely on the economic growth of the country. Elucidate the various growth drivers of the cement industry in India. [<Answer>](#)
(12 marks)
2. It has been observed that the growth of cement industry is closely related with that of GDP growth rate. You are **required** to estimate the annual growth rate of the industry for the 7th year and thereafter based on a simple linear regression equation $\alpha + \beta x$, where, x = GDP growth rate. [<Answer>](#)
(9 marks)
3.
 - a. Mr. Rupesh Kumar a regular investor in stock market, wishes to know whether the stock of Maruti Cement Ltd. exhibits weak form of efficiency or not through runs test. Based on the information provided in **Annexure**, conduct a runs test, and advice Mr. Rupesh if the prices are independent or not at significance level of 2%, 5% and 10% respectively. [<Answer>](#)
(8 marks)
 - b. The EPS of Maruti Cement Ltd. is expected to increase at 11% for the next 3 years, and then remain steady at 14% for next two years, before reaching a constant growth rate of 5.5%. The company maintains a payout ratio of 30%. Currently the share price of MCL is Rs. 1214.91. Determine the required rate of return of the shareholders of MCL using the Dividend Discount Model. [<Answer>](#)
(6 marks)
4. Considering production and consumption growth of 9 to 10 per cent, the experts believe that the demand-supply position of the cement industry is expected to maintain similar growth rate in future. In such a condition, the industry is likely to come across some negative issues. In this context what are the various negative issues the industry has to consider for its future growth. [<Answer>](#)
(7 marks)
5. The strength of the competitive forces in an industry determines the degree to which the inflow of investment occurs and derives the return to the free market level, and helps the firms to sustain above average returns. Discuss the various competitive forces of the Indian cement industry. [<Answer>](#)
(8 marks)

Industry Scenario

The cement industry is experiencing a boom on account of the overall growth of the Indian economy. The demand for cement, being a derived demand, depends primarily on the industrial activity, real estate business, construction activity, and investment in the infrastructure sector. India is experiencing growth on all these fronts and hence the cement market is flourishing like never before. Indian cement industry is globally competitive because the industry has witnessed healthy trends such as cost control and continuous technology upgradation. Global rating agency, Fitch Ratings, has commented that cement demand in India is expected to grow at 10% annually in the medium term buoyed by housing, infrastructure and corporate capital expenditures.

The cement story was in the limelight over the past few fiscals owing to the fact that the demand grew at a faster pace compared to supply and therefore, cement prices remained firm. The need to build up infrastructure to sustain a 9% GDP growth, also kept investors keen on the sector. Prior to FY04, the sector was looming in the darkness. However, the turnaround post FY04, prices marched northwards leading to significant improvement in the companies' profitability owing to strong increase in demand with no major capacity additions taking place. With the increased cash flows companies started cleaning their balance sheets and lined up huge expansion plans to cater the rapid demand. On the other hand sustainable development is recognized as a process of development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It includes development of work atmosphere, commitment to environment protection etc.

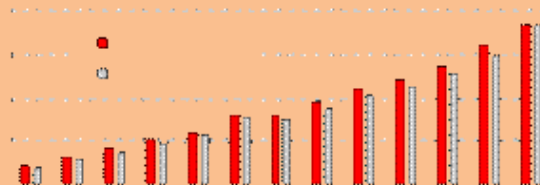
However, ultimately cement is a commodity and has to pass through the cyclicity. The cement industry is highly cyclical in nature and depends largely on the economic growth of the country. There is a high degree of correlation between the GDP growth and the growth in cement consumption.

India is the second-largest producer of cement in the world after China with industry capacity of approximately 160 MT in 2007. The cement industry is regional in nature due to the concentration of limestone reserves located in a few states. This has resulted in a surplus situation in some regions and a deficit in others. Demand for cement has grown at a CAGR of 9.1% in the last two years with supply growing at a CAGR of 8.2% in the same period. With a large amount of infrastructure activities being planned in commercial, real estate and housing sector along with huge development works in roads, railways, ports and hydel projects, industry expect the cement demand growth momentum to stay intact. This will have a positive impact on cement prices in different regions till new capacities come up by mid-FY09. Thus the growth in the industry is surrounded with boom in housing sectors, growth of infrastructure investments etc.

Current scenario

According to analysts, cement industry in India is poised for strong growth going forward, driven by continued investments in the housing and

infrastructure sectors. So, going forward, the outlook for the industry continues to look positive. Analysts expect that the 9% growth rate will be maintained. Market analysts feel that the sector will maintain a growth of around 10% compounded annual growth rate (CAGR) for the next five years. Analysts say "The booming housing and infrastructure sectors have driven the growth in cement sector. Improved volumes, coupled with the rising prices, have resulted in improved margins. On the back of continued investment in the housing and infrastructure the industry is expected to grow by 11% for the next one or two years."



The year ending March 2007 turned out to be one of the best years for the cement sector. Cement companies notched record profit.

Cost structure

In the last budget (2007-08), the government in order to rationalize prices and contain inflation had hiked excise duty on a deferential basis, rationalized import duty and reduced countervailing duty to nil. The moves were not expected to have significant impact on the sector as being a bulk commodity transporting across regions is a problem and hike in excise duty is generally passed on. Government initiatives in the infrastructure sector, coupled with the housing sector boom and urban development, will continue being the main drivers of growth for the Indian cement industry. Moreover, the Union Budget for 2008-09 has sought measures to increase availability and reduce prices.

- Increased infrastructure spending has been a key focus area over the last five years indicating good times ahead for cement manufacturers.
- The government has increased budgetary allocation for roads under NHDP. This coupled with government's initiatives on the infrastructure and housing sector fronts would continue to remain the key drivers.
- Other budget measures such as cut in import duty from 12.5 per cent to nil, removal of 16 per cent countervailing duty, 4 per cent additional customs duty on portland cement and differential excise duty are all intended to cut costs.

Regional demand supply scenario

Being a bulk commodity, it is unviable to transport cement beyond a certain distance and due to the requirements of proximity to raw materials, proximity to markets, export potential and high freight rates involved it becomes necessary to evaluate the sector on a regional basis. The industry is divided into five regions - north, south, east, west and central.

North India

Northern region is facing an acute supply crunch for the last four years due to region's demand-supply deficit and increased net exports to other regions. Cement demand in the region grew at a CAGR of 10% for the last five years and is expected to grow at the same pace for the next five years, backed by aggressive infrastructure development activities, significant hydel capacity addition in the region, surging housing demand, SEZs construction, etc. The region will witness tight demand supply situation for the next two years on account of soaring demand and limited capacity addition. In the last three years, mere 5.2 mn tonnes of capacity was added and 3 mn tonnes of this arrived in the last quarter of FY06. The sector will witness a marginal surplus of 1.3 mn tones in FY08E. Till the end of FY08E, the outlook remains positive on the region.

West India

Cement demand in the Western region has grown at a CAGR of 5.8% for last five years, backed by consistent infrastructure spending, concentrated investment from region-specific industries like oil refineries in Vadodara and Jamnagar region of Gujarat and steady growth in housing activities. The demand will continue to grow at the same pace for next 3-5 years fuelled by enhanced infrastructure spending like construction of the Metro Railway in Mumbai, express highways joining Gujarat and Mumbai, resurgence in industrial investments, strong growth in retail sector etc.

South India

The demand in the region has grown at CAGR of 10.2% for the last five years as compared to capacity addition growth of 6.5% for the same period, reflecting the low capacity addition in the region since FY02. The region's demand is expected to grow in the range of 8-9% for the next five years on account of strong capital expenditure in the IT and electronic hardware sector, enhanced spending on infrastructure development, special thrust on irrigation activities, etc.

Central India

Demand in the Central region grew at CAGR of 5% as compared to All-India demand growth of 8.5%. Capacity utilization in the region will continue to remain above 99% for next two years and the region carries the lowest risk among all the regions. Prices are expected to be sustained at current levels for another next two years till the time huge capacity addition sets in the Northern region.

East India

The region is witnessing turbulent investments to the tune of \$140bn to be implemented in next 5-10 years. Volatility in cement prices in the Eastern region has been least among all the regions. The prices to remain strong for the next two years reflect the gains of tight consolidation and bolstering demand. Demand for cement has been increasing at a very good pace, driven by large amount of infrastructure investments and housing growth. Supply has also been improving on account of capacity additions as well as higher capacity utilizations achieved through higher blending. The cement demand is expected to grow by 10% for the next three years due to limited capacity additions to cater the increased demand. Capacity utilizations would jump to 97% in the next two years till new capacities come up by mid-FY09.

Exports

The export of Indian cement has increased over the years, giving a boost to the Indian cement industry. The demand for cement in the foreign countries is a derived demand, for it depends on industrial activity, real estate, and construction activity. Since growth is taking place all over the world in these sectors, Indian export of cement is also increasing.

The cement industry in India has around 300 mini cement plants and 130 large cement plants. The total production capacity of these plants is around 167.36 million tons. The Indian cement industry is technologically very advanced, as a result of which the quality of Indian cement is now considered the second best in the world. This has given a major boost to the Indian export of cement. The production of cement in India is not only able to meet the domestic demand, but large amounts are also exported. A fair amount of clinker and cement by-products are also exported by India. As the quality of Indian cement is very good, its demand in the international market is always high.

Future Outlook

With the cement industry agreeing not to hike cement prices for one year, players whose capacities will come on stream in the near term, able to increase combination, take advantage of regional price differences and undertake cost cutting measures will be better placed than others in near term.

It is expected that 18-20 million tonnes of capacities will come on stream in FY 2008 and much more in FY 2009. On the positive side, the booming real-estate sector, capacity additions by major industries, and huge investments proposed in special economic zones (SEZs) can scale up demand. Also, with bumper cash flows, the holding power of the industry has improved.

After witnessing a concrete surge in profit in FY 2007, the industry is bracing itself for a softer growth in the current fiscal and softening of profitability in the next fiscal.

From the past experience, it is observed that the growth of cement industry is closely related with that of GDP growth rate. The following trends are observed regarding the same.

Period	GDP growth rate (%)	Cement industry growth rate (%)
1	8.2	8.5
2	8.5	9.6
3	7.5	10.2
4	9.0	12.5
5	9.4	13.9
6	9.6	14.5

The annual growth rate in GDP is expected to be 9.5% for the 7th year and 5.5% thereafter.

Maruti Cement Limited (MCL)

Maruti Cement Ltd. is India's foremost manufacturer of cement and concrete. MCL's operations are spread throughout the country with 14 modern cement factories, 19 Ready mix concrete plants, 19 sales offices, and several zonal offices. It has a workforce of about 9000 persons and a countrywide distribution network of over 9,000 dealers. MCL's research and development facility has a unique track record of innovative research, product development and specialized consultancy services. Since its inception in 1936, the company has been a trendsetter and important benchmark for the cement industry in respect of its production, marketing and personnel management processes. Its commitment to environment-friendliness, its high ethical standards in business dealings and its on-going efforts in community welfare programmes have won it acclaim. MCL has made significant contributions to the nation building process by way of quality products, services and sharing its expertise.

In the 70 years of its existence, MCL has been a pioneer in the manufacture of cement and concrete and a trendsetter in many areas of cement and concrete technology including improvements in raw material utilisation, process improvement, energy conservation and development of high performance concretes. MCL's brand name is synonymous with cement and enjoys a high level of equity in the Indian market.

The company's various businesses are supported by a powerful, in-house research and technology backup facility - the only one of its kind in the Indian cement industry. This ensures not just consistency in product quality but also continuous improvements in products, processes, and application areas.

MCL has rich experience in mining, being the largest user of limestone, and it is also one of the principal users of coal. As the largest cement producer in India, it is one of the biggest customers of the Indian Railways, and the foremost user of the road transport network services for inward and outward movement of materials and products. MCL has also extended its services overseas to the Middle East, Africa, and South America, where it has provided technical and managerial consultancy to a variety of consumers, and also helps in the operation and maintenance of cement plants abroad.

MCL is among the first companies in India to include commitment to environmental protection as one of its corporate objectives, long before pollution control laws came into existence. The company installed pollution control equipment and high efficiency sophisticated electrostatic precipitators for cement kilns, raw mills, coal mills, power plants and coolers as far back as 1966. Every factory has state-of-the art pollution control equipment and devices.

Production

43 Grade Cement (OPC 43 Grade)

It is the most commonly used cement in all constructions including plain and reinforced cement concrete, brick and stone masonry, floors and plastering. It is also used in the finishing of all types of buildings, bridges, culverts, roads, water retaining structures, etc.

53 Grade Cement

This is an Ordinary Portland Cement which surpasses the requirements of IS: 12269-53 Grade. It is produced from high quality clinker ground with high purity gypsum. 53 Grade OPC provides high strength and durability to structures because of its optimum particle size distribution, superior crystalline structure and balanced phase composition.

Fly-ash based Portland Pozzolana Cement

This is a special blended cement, produced by inter-grinding higher strength Ordinary Portland Cement clinker with high quality processed fly ash - based on norms set by the company's R&D division. This unique, value-added product has hydraulic binding properties not found in ordinary cements.

Outlook

With the industrial production showing an upward trend, housing construction showing a sign of revival and the government gearing up to spend more on infrastructure, the company is looking forwards in infrastructure sector. The company expects the overall demand growth to be about 7% - 8 % from the current growth rate of 5%. Consolidation will be more regional, with companies seeking to gain dominance in their chosen regions.

The company is also increasing the capacity to around 6 lakh tonnes a year by acquiring state-of-the-art equipment. This will not only bring down the cost of production considerably but also make the production cost-effective.

**Profit and Loss account of
MCL as on**

(Rs in crores)

	0703-(12)	0603-(12)	0503-(12)	0403-(12)	0303-(12)
Income :					
Operating Income	984.04	573.09	451.44	370.69	387.85
Expenses					
Material Consumed	270.89	213.07	159.46	130.65	169.04
Manufacturing Expenses	248.73	145.78	123.71	101.42	93.91
Personnel Expenses	45.39	29.15	25.09	23.88	22.54
Selling Expenses	87.85	49.79	40.05	25.70	23.40
Administrative Expenses	75.88	47.79	40.02	34.61	28.69
Cost Of Sales	728.74	485.58	388.33	316.26	337.58
Operating Profit	255.30	87.51	63.11	54.43	50.27
Other Recurring Income	21.17	14.55	14.04	9.48	11.20
PBDIT	276.47	102.06	77.15	63.91	61.47
Financial Expenses	53.96	23.46	22.52	27.33	28.14
Depreciation	55.08	27.93	20.29	20.68	21.00
PBT	167.43	50.67	34.34	15.90	12.33
Tax Charges	67.45	24.09	4.86	5.52	5.66
PAT	99.98	26.58	29.48	10.38	6.67

**Balance Sheet of MCL
as on**

(Rs in

crores)

	0703-(12)	0603-(12)	0503-(12)	0403-(12)	0303-(12)
SOURCES OF FUNDS					
Owner's Fund					
Equity Share Capital (Face value of Rs.10 each)	8.55	7.65	7.65	7.65	7.65
Preference Share Capital	0.00	0.00	0.00	0.00	0.00
Reserves & Surplus	666.35	334.24	258.11	240.57	222.20
Loan Funds					
Secured Loans	930.63	624.61	448.39	237.10	240.24
Unsecured Loans	83.96	58.57	50.45	45.36	38.14
Total	1,689.49	1,025.07	764.60	530.68	508.23
USES OF FUNDS					
Fixed Assets					
Gross Block	1,697.08	1,044.58	769.14	704.92	703.57
Less : Revaluation Reserve	78.59	86.37	93.90	102.31	112.06
Less : Accumulated Depreciation	469.93	414.03	378.30	349.88	322.58
Net Block	1,148.56	544.18	296.94	252.73	268.93
Capital Work-in-progress	116.48	158.03	225.09	9.71	0.27
Investments	378.57	175.28	87.33	148.49	148.84
Net Current Assets					
Current Assets, Loans & Advances	679.23	459.03	368.23	274.28	226.42
Less : Current Liabilities & Provisions	633.35	312.13	214.34	156.69	139.22
Total Net Current Assets	45.88	146.90	153.89	117.59	87.20
Miscellaneous expenses not written	0.00	0.68	1.35	2.16	2.99
Total	1,689.49	1,025.07	764.60	530.68	508.23

**Annexure
Share prices of MCL**

Period (Date)	Share prices (Rs.)
5-May-08	1215.50
6-May-08	1222.46
7-May-08	1215.44
8-May-08	1216.46
9-May-08	1203.51
12-May-08	1202.59
13-May-08	1201.69
14-May-08	1214.83
15-May-08	1217.01

16-May-08	1219.21
20-May-08	1222.45
21-May-08	1224.72
22-May-08	1226.03
23-May-08	1225.37
26-May-08	1223.75
27-May-08	1222.16
28-May-08	1219.61
29-May-08	1215.09
30-May-08	1225.58
02-June-08	1222.14
03-June-08	1223.74
04-June-08	1226.38
05-June-08	1230.06
06-June-08	1234.77
09-June-08	1237.53
10-June-08	1238.33
11-June-08	1232.17
12-June-08	1231.05
13-June-08	1242.98
16-June-08	1214.91

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. With regard to the Indian markets, short selling has intermittently shown its presence and now it is making a comeback being globally accepted as a stimulator for stock market activities. Discuss how investors can benefit from short selling. Also explain how the market is benefited from short selling.

[<Answer>](#)

(8 marks)

7. Short selling is beneficial in one hand; on the other hand various conflicts arise over short selling. Discuss the various conflicts in this regard.

[<Answer>](#)

(7 marks)

SEBI is back in action; this time to boost market liquidity. The capital market regulator is proposing to allow short selling of securities to institutional investors, like FIIs and mutual funds. With regard to the Indian markets, short selling has intermittently shown its presence and now it is making a comeback being globally accepted as a stimulator for stock market activities. Short-selling, which is considered as an essential feature of the developed market, refers to the selling of a security that an investor does not own. To be more specific, it is the sale of a security that is not owned by the seller, but with a promise to deliver the same.

Investors are motivated to short-sell for two reasons speculation and hedging. These are the most obvious reasons and it aims at making a profit from an overvalued stock or market. Investors short-sell with the hope that the price of the stock will come down and they can buy back the stock at a lower price level. While hedging the investors can protect their long positions by offsetting short positions. They can prefer to go short on the cash market when the spot price of a stock is higher than the future prices.

Short-selling is in vogue in all developed markets globally and it is considered to play a positive role in the stock market. Sometimes, it works as a price discovery mechanism which helps in identifying the overpriced stocks. Apart from increasing the depth and width of the market, it may lead to excessive speculation. Short-selling can be instrumental in avoiding crashes in a bull market. It appears that in the booming bull market in India, the SEBI has consciously taken the decision of allowing short-selling by all classes of investors as a preventive mechanism to avert any potential crash of the market. To keep an eye over short selling SEBI has prepared norms that says, institutional investors will have to disclose in advance at the time of placement of order whether the transaction is a short-sale. However, retail investors can make similar disclosures by the end of the trading hours on the transaction day.

According to the SEBI, brokers will be mandated to collect the details on scripwise short-sell positions, collect data and upload it to the stock exchanges before the commencement of trading on the following trading day. The stock exchanges shall then consolidate such information and disseminate the same on their websites for the information of the public on a weekly basis. Probably, the SEBI's decision of allowing short-selling with certain restrictions, coupled with an active

lending and borrowing mechanism for securities, is a step forward to put the Indian stock market on par with the developed markets of the world.

Though the advantages of short selling are many, it is not free from conflicts. The adverse school of thought propounds that short selling will lead to increasing the potential risks which would eventually lead to destabilization of the market. Short-selling increases liquidity and contains volatility in the market as there will be more and more floating shares and increasing players in the market. This particular type of transaction has been practiced since long in various global exchanges and people have held different views as to the merits and demerits concerned.

As the practice of short selling is prevalent in most global markets, it is to be borne in mind that market analysts opine that the process can cause a fall in the market and lead to manipulative activities. Thus, in order to retain the interest of the investors, several safeguards have been taken to prevent the exploitation of the market practices.

However, one has to wait and watch the market to see whether the desired outcome of containing volatility and increasing liquidity happens in the market, once it is implemented.

END OF CASELET 1

Caselet 2

Read the caselet carefully and answer the following questions:

8. Stock trading in India has moved from floor-based to online trading. With the expansion of the capital market facilitated by sound economic reforms, online share trading in India is gaining momentum. Discuss how online trading is beneficial for stock exchanges.

[<Answer>](#)

(8 marks)

9. Online trading has become an important phenomenon in the capital market which facilitates buying and selling shares through internet. This system comprises of various opportunities and challenges. Briefly discuss the various challenges facing online trading.

[<Answer>](#)

(9 marks)

Stock trading in India has moved from floor-based to online trading. In this liberalized era, the capital market received a great impetus and has grown considerably, particularly in the last decade. Today, Indian markets conform to International standards, both in terms of structure and operating efficiency.

Equity trading in India was basically a floor-based activity in the BSE. Traditionally, stock trading was done through stock brokers, personally or through telephones. As the number of people trading in the stock market increased enormously in last few years, many problems started cropping up like location constraints, busy phone lines, etc. Furthermore, as dependence on the brokers was high, they took undue advantage of the situation and even at times misled their clients in order to achieve their personal benefits. The National Stock Exchange (NSE) was set up in 1994 to solve these problems. It built an electronic order matching system, where computers matched orders without human intervention. It used satellite communications to make the trading system accessible from different locations all over the country. Today, online share trading is the order of the day and is gaining popularity rapidly. Online Stock Market Trading is an Internet-based stock trading facility. Investors can trade shares through a website without any manual intervention from stockbrokers. Here, these Online Stock Trading companies act as stock brokers for the investors. They are registered with one or more Stock Exchanges. Online Trading websites in India trade mostly on the BSE and NSE.

There are two different types of trading environments available for online equity trading. Installable software-based stock trading and Web-based trading application. These trading environments require software to be installed on investors' computers. These softwares are provided by the stock broker. This requires high speed Internet connection. These kinds of trading terminals are used by high volume intra-day equity traders. This kind of trading environment doesn't require any additional software installation. They are like other Internet websites which investors can access from around the world through normal Internet connection.

With the expansion of the capital market facilitated by sound economic reforms, online share trading in India is gaining momentum. The number of firms providing online broking services is increasing at a fast pace. With the emergence of new entrants like Sharekhan, ICICI Direct, etc., the competition has intensified further. An online trading portal can be successful only if it provides a range of services for the end user at a competitive cost. The service provider must also update his technology to meet the demands of growing volumes. Online investors must take into account the safety, speed of execution, and the brokerage cost before deciding on the online broking company.

There are challenges on the regulatory aspects of selling securities through the internet. There is concern about security and the fraudulent use of the Internet. Infrastructure in terms of bandwidth or lack of access could pose as a drawback. Investors, issuers, and underwriters need to work on their processes to ensure efficacy of the trade transactions. The market breadth in a developing country like ours is narrower than that in the western markets. Online trading will enable a developing country like India to improve the market depth as trading volumes will increase. All the online brokers are targeting large volumes of trade to make huge profits, although they may incur losses in the short-run. While some of them admit they will make losses in the short-term, they remain optimistic about overcoming them with sufficient volumes. Besides, it would also result in a huge influx of foreign investment into the country.

END OF CASELET 2

Caselet 3

Read the caselet carefully and answer the following questions:

10. The fundamentals of a company can be grouped into two categories; quantitative or which can be measured in numerical terms and qualitative which can be assessed on the basis of certain character or process. Elucidate the various qualitative factors in fundamental analysis.

[<Answer>](#)

(10 marks)

11. Followers of the efficient market hypothesis, however, are usually in disagreement with both fundamental and technical analysts. Discuss the criticism leveled against fundamental analysis.

[<Answer>](#)

(8 marks)

There are innumerable investment strategies that are very different from each other, yet almost all use the fundamentals as a part of their analysis. Fundamental analysis is all about doing qualitative and quantitative analyses about the basic details of the business such as the revenue, expenses, assets, liabilities and all other fundamental aspects of the company. As commonly argued against the technical analysis, fundamental analysis provides a more in-depth and fundamental measure of stocks from a long-term perspective by studying their fundamental parameters. It is considered to be the cornerstone of investing.

Fundamental analysis is all about "researching the fundamentals of the company". The fundamentals of a company can be grouped into two categories; quantitative or which can be measured in numerical terms and qualitative which can be assessed on the basis of certain character or process. Thus, for a company, the quantitative factors are those which can be obtained from the financial statements like those of the revenue, expenses, profit and the deferral of revenue, to mention a few. While the nature of governance etc are the qualitative factors.

Fundamental analysis focuses on cause and effect relationship. The external causes exhibits to the trading markets that are likely to affect prices in the market. These factors may include the weather, current inventory levels, government policies, economic indicators, trade balances and even how traders are likely to react to certain events. Of course, fundamentalists have to know what to look at and how to interpret the information available.

Fundamental analysis has been followed by various criticisms. Followers of the efficient market hypothesis, however, are usually in disagreement with both fundamental and technical analysts. The efficient market hypothesis contends that it is essentially impossible to produce market-beating returns in the long run, through either fundamental or technical analysis.

Thus the end objective of fundamental analysis is not to make speculative profits which call for frequent entering in and exit from the market or switching from one security of portfolio to another. Rather, it is to avoid the risk of loss from buying an overpriced stock and selling an underpriced stock. The fundamentalists view investments as long-term decisions, in fact, for such a long period that the holding of a security or portfolio can be considered permanent.

END OF CASELET 3

END OF SECTION E

END OF QUESTION PAPER

Suggested Answers

Security Analysis – II (MSF2D2) : July 2008

Section D : Case Study

1. Growth drivers

[<TOP>](#)

Strong correlation of GDP growth and cement demand growth

Demand for cement is correlated to the GDP growth of the country, infrastructure and industrial capex as well as exports. Strong GDP growth expected in the coming years and huge planned investments should result in healthy growth in the cement demand. The Indian economy continues to be on a much stronger growth path driven by increased amount of infrastructure spending and capex. The economy is expected to grow by 8% for the next two to three years, which will drive an increased demand growth for the cement industry. The cement demand is expected to grow at a CAGR of 10% at least for the next three years.

Growing presence of international players

The cement industry witnessed serious M&A activity in the past few years, as a result of which the top four players now account for almost 52-55% of the installed cement capacity of India, as against 40-42% in FY2000. The M&A activity have also had global participants. The growing presence of international players bring with them better technology and operational efficiencies which could significantly alter pricing patterns.

Expected infrastructure investments

The investments to the tune of Rs.2900 billion are expected in the infrastructure segment for FY07-08 which will drive growth in the construction and cement industry. Infrastructure investments worth Rs.2900 billion should translate into approximately Rs.1500 billion worth of construction investments. This will drive the cement demand incrementally by Rs.49 billion, hence translating into an incremental cement demand of approximately 12.3 metric tonne.

Surge in infrastructure and housing sector

The all India consumption of cement has shown a CAGR of 7.9% over the last 10 years. There is a direct correlation with GDP growth and growth in cement demand. Emphasis on infrastructure has been on a high in the last few years and is expected to continue, if not increase with a new Government in place at the center.

CRIS INFAC outlook on the cement industry expects a robust demand growth of 8-9% over the next 4-5 years. This is attributed to higher investments in the construction sector and a higher growth in number of households, especially in the urban areas.

2.

[<TOP>](#)

Period	GDP growth rate (%) X	Cement industry growth rate (%) Y	(X –)	(X –) ²	(Y –)	(Y –) ²	(X –) (Y –)
1	8.2	8.5	– 0.5	0.25	– 3.03	9.18	1.52
2	8.5	9.6	– 0.2	0.04	– 1.93	3.72	0.39
3	7.5	10.2	– 1.2	1.44	– 1.33	1.77	1.60
4	9.0	12.5	0.3	0.09	0.97	0.94	0.29
5	9.4	13.9	0.7	0.49	2.37	5.62	1.66
6	9.6	14.5	0.9	0.81	2.97	8.82	2.67
Total	52.2	69.2		3.12		30.05	8.13
Average	8.7	11.53					

Variance of GDP growth rate = $3.12/5 = 0.62 (\%)^2$

Variance of Cement industry growth rate = $30.05/5 = 6.01 (\%)^2$

Covariance between the growth rates of GDP and Cement industry = $8.13/5 = 1.63 (\%)^2$

Beta = $1.63/0.62 = 2.63$

Alpha = $11.53 - 2.63 \times 8.7 = -11.35$

Linear relationship = $-11.35 + 2.63 \times \text{GDP growth rate}$

Growth rate in Cement industry for the 7 year = $-11.35 + 2.63 \times 9.5 = 13.64\%$

Growth rate in Cement industry from 8th year onwards = $-11.35 + 2.63 \times 5.5 = 3.12\%$.

3.a.

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Period (days)	Stock prices	Price change
1	1215.50	
2	1222.46	+
3	1215.44	–
4	1216.46	+
5	1203.51	–
6	1202.59	–
7	1201.69	–
8	1214.83	+
9	1217.01	+
10	1219.21	+
11	1222.45	+
12	1224.72	+
13	1226.03	+
14	1225.37	–
15	1223.75	–
16	1222.16	–
17	1219.61	–
18	1215.09	–
19	1225.58	+
20	1222.14	–
21	1223.74	+
22	1226.38	+
23	1230.06	+
24	1234.77	+
25	1237.53	+
26	1238.33	+
27	1232.17	–
28	1231.05	–
29	1242.98	+
30	1214.91	–

Positive price changes = $n_1 = 16$

Negative price changes = $n_2 = 13$

Total price changes = $r = 12$

Mean = $\mu_r = 15.34$

Standard error = $\sigma_r = 2.61$

Hence t table is used with $(29 - 1) = 28$ degrees of freedom

At 2% significance

$Z = 2.467$

Lower limit = $15.34 - 2.467 \times 2.61 = 8.90$

Upper limit = $15.34 + 2.467 \times 2.61 = 21.78$

Prices are independent at 2% level of significance, because r falls within the upper and lower limit.

At 5% significance

$Z = 2.048$

Lower limit = $15.34 - 2.048 \times 2.61 = 9.99$

Upper limit = $15.34 + 2.048 \times 2.61 = 20.69$

Since the number of runs falls within the upper and lower limit, we conclude that prices are independent at 5% level of significance.

At 10% significance

$Z = 1.701$

Lower limit = $15.34 - 1.701 \times 2.61 = 10.90$

Upper limit = $15.34 + 1.701 \times 2.61 = 19.78$

Prices are still independent, since the number of runs falls within the upper and lower limit.

- b. Current stock price of MCL = Rs.1214.91

Current EPS = Rs. 116.94

DPS = $116.94 \times 0.30 = \text{Rs.}35.08$

According to Dividend Discount Model

$1214.91 =$

$k = 9.55\%$.

4.Negative issues

Spiraling input costs

Cement is a commodity business and any company's ability to maintain margins is dependent on factors like access to coal and stable transportation cost apart from favorable pricing environment. The rise in input costs like coal prices and hike in petroleum product prices could pressurize margins.

Rising interest rates

Interest rates are showing signs of hardening. The impact of this on housing demand will play a crucial role on the future prospects of the sector. The importance of the housing sector in cement demand can be gauged from the fact that it consumes almost 70% of the country's cement. If this support wanes, it could tilt the odds against the cement manufacturers.

Slow pace of reforms

Infrastructure spending, in the recent past has been largely restricted to the government. The private sector has not been provided with adequate impetus in this regard. Liberalizing FDI in the public infrastructure sector could provide a big fillip.

Ban on export

The ban on cement export by Government of India will lead to an over-supply in the domestic market in the current financial year, resulting in a pricing pressure.

Downward Real estate sector

Slow down in the demand for real estate due to excessive hike in prices in real estate has given a negative signal to the industry. The buyers are not ready to pay the price quoted, hence the demand decreased that directly affected the industry, as cement is one of the most critical input for this sector.

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5. Threat of entry

Its capital intensive nature acts as a threat to the new players in the industry. Furthermore, the existing players are also facing demand supply imbalance which in turn deters the new entrants. Price regulation of the government on coal, power tariffs, railway, freight, royalty and cess on limestone affects the pricing of cement and cement products. These act as indirect controls though the price of the cement itself is not controlled by the government. The location of the plant depends on the location of the major raw material (limestone) which also does not permit the new entrant easily to enter the industry. However, the cyclical nature of the industry and the amount of profits the existing players earn in good times lure the new players in the industry. Other factors that encourage the new entrants is the projected growth in demand, huge potential market, easy availability of raw material and cheap labor. .

Bargaining power of suppliers

Most of the plants are self reliant on their raw material requirements as it works out to be economical for them. However, power, a major input, is government controlled and the players do not enjoy bargaining power. The other factors that influence the industry's profitability are freight charges, coal, etc. which are also government controlled and hence the suppliers bargaining power tends to be high.

Bargaining power of buyers

The presence of a number of small players increases the bargaining power of buyers since they have a wide choice of suppliers to choose from as the manufacturing process of cement and quality does not vary widely across the different classes of players in the industry.

Threat of substitutes

Cement industry does not face virtually any threat of substitutes. Cement being the major building material widely adopted in household and industrial construction in fact enjoys a monopoly position in the construction industry.

Rivalry among the players

Cement industry is dominated by a lot of small players located in specific regions. The huge potential invites a number of participants in the industry but leads to demand supply imbalance which affects all the players uniformly. Because of intensive competition, the industry is being swept by merger wave in the recent past which again has contributed to increased competition even in the acquisition activity.

The current rivalry among existing players is also high due to low realizations of cement. This has been accentuated by the failure of the repeated attempts of the companies in this industry to form cartels and regulate supply through plant shut downs.

Section E: Caselets**Caselet 1****6. Benefits to Investors**[< TOP >](#)

- An investor can take ample exposure with `rotation of limited money, if he invests intelligently with good investment techniques.
- As the outflow in terms of money from the investor is limited to the difference between the buying and selling price, he requires only minimum liquidity.
- Short-selling suits investors with bearish temperament.
- It gives a level playing field to all classes of investors.
- The Foreign Institutional Investors (FIIs), who normally earmark a percentage towards short-selling, can be benefited in the Indian market too.
- Short-selling will allow long-term institutional players like insurers and financial institutions to earn some additional money by lending some of the stocks held in their portfolios.

Benefits to the Market

- Short-selling increases liquidity and contains volatility' in the market as there will be more and more floating shares and increasing players in the market.
- In a rising market, it can be seen as a counter-balance that can cool down overvalued stocks.
- In a falling market, short-sellers will not only sell but also lend buoyancy to the market as they need to cover their positions.
- It can be seen as a defence against market manipulation and, therefore, a measure to improve market integrity.

7. Short selling would lead to a downward movement of the share prices. The increase in the volatility triggered by short selling would be such that prices of shares would crash. As a result, the fall in the share price would erode the confidence of company towards raising capital from the market. Things can turn worse in a bear market, where increased short selling may lead to market disorder, increase in volatility and the market may remain exposed to exploitation by a group of fraudulent investors. In declining trend in the share prices of a company can even impact its fund raising capability and undermine the commercial confidence of the company. In a bear market in particular, short-selling can contribute to disorderly trading, give rise to heightened short-term price volatility and could be used in manipulative trading strategies.

[< TOP >](#)**Caselet 2**

8. Orders are directly sent to stock exchanges rather than to a stock broker. This makes order execution very fast. It provides almost every piece of information that a stock trader requires on a single screen including stock market charts, live data, alerts, stock market news, etc. It also helps the client to check trading history, demat account balance, bank account balance, etc., at any time, most importantly it brings transparency in the entire system besides securing the transactions. On the other hand the low cost of these online brokerage firms gives a competitive edge upon the traditional broker. The price of a stock through online trading is different from that through traditional broker. This makes the cost of trade cheaper through online trading than traditional. Online trading saves the time of the broker as information is easily available. An investor has ample opportunity to disseminate information and act quickly on his own personal research and can have complete control over his investments. The system passes on the benefits of real-time trading to the ultimate consumer. Ease of use, considerable time savings above traditional full trade service and host of supplementary services offered over the Internet are some of the reasons why more and more people are choosing online trading as a method to trade. It improves the market timing and is a lot cheaper as it offers reduction in overheads. It provides large variety of trading opportunities and increases profit potential of trade. It puts the investor in complete control of his or her trading decisions.
9. Failure to process online trading instructions, excessive delay in executing, inability to access online trading accounts, inability to reach the brokers through e-mail or telephone and erroneous processing of online trading instructions and the investor's own inexperience are some of the inherent problems of online trading. The risk concerned with online trading is connected to share price volatility, depending upon the rise and fall of online trading over the time. The safety of transactions on the Internet depends on the encryption system used for example: Milan, the Italian stock exchange, is the fourth largest stock market in Europe. In the year 2006, regulators of Canada stock market identified a stock scam in which the accounts of four brokers were attacked following a manipulation of a stock's price to create artificial demand. The online brokers were victims to tricks through which their client account information was captured. Some fraudulent practices also take place due to Internet technology. It includes, offering securities which do not exist, spreading wrong information which results in easier price rigging, and making unrealistic offers which are misleading.

Caselet 3

10. The Qualitative Factors in the Fundamental Analysis

The Intangibles of the Company

Fundamental analysis takes into consideration the various intangibles of the company such as brand name and the market shares that have a strong influence on the value of the stock of the company.

The Business Model

The business model refers to the process which the company uses. This is obviously the first element investors need to know before investing in any company. Sometimes, it is very easy to understand the business models of companies like Coco-Cola where the products are known, even though the span of the business is large. In many a case such as KFC, the franchisee mode of business makes it difficult to comprehend.

The Competitive Advantage

The companies which can earn competitive advantage and retain it are the real winners in the world of business. It is advisable for the investors to identify companies which have been able to maintain their competitive advantages like, Coco-Cola, Microsoft, etc., which can be an investors' delight in the long run.

The Management of the Company

The management of the company is believed to be the most important aspect of the investment indicators. Getting information about the management of the company is one of the trickiest issues. Management information can be sought in various ways such as conference calls, Management Discussion and Analysis (MD&A), ownership and insider sales and past performance.

Corporate Governance

Corporate governance pertains to the policies within an organization that affect the relationships and responsibilities between management, directors and stakeholders. These policies and procedures help in charting out good functioning by the company.

Companies such as Standard & Poor's attempt to quantitatively assess companies on how well their corporate governance policies serve stakeholders. Most of these reports are publicly available with frank comments on aspects such as the structure of the board of directors, stakeholder rights and financial and information transparency.

Financial and Information Transparency

The timeliness and transparency in the information provided by the company help in deciding the sincerity of the company in establishing a relation with its stakeholders. This enables following of good investment practices by the company as investors feel comfortable with the informations which they can read and comprehend.

Structure of the Board of Directors

The board of directors is composed of representatives from the company and representatives from outside of the company. The combination of the directors from inside and outside the organization creates the balance and assures genuine representation of the stakeholders. The independence of the board of the directors and the management is a key area that has to be looked into while the fundamental analysis is done

- 11.** The main criticisms of fundamental analysis come primarily from the proponents of technical analysis and believers of the "Efficient Market Hypothesis" (EMH). According to technical analysis, the news about a company has an impact on a stock and is reflected in the same; hence, the analysis of the volume of the stock, the price momentum and direction can provide more insight than the usage of underlying fundamental factors of the company itself.

The rationale put forward by the "EMH" is that, since the market efficiently prices all the stocks on an ongoing basis, any opportunities for excess returns derived from fundamental analysis will be almost immediately used away by the market participants. Analysts believe that this type of investing is based on exactly the kind of information that all major participants in publicly traded markets already know, therefore it can provide no real advantage. They believe much of the fundamental information is fuzzy; meaning that it is often up to the person looking at it to interpret its significance.

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* The above case is prepared only for the purpose of examination and not to illustrate either effective or ineffective performance of the fund. The case contains real information adapted and combined with other information to generate discussion or analysis on the desired topics.