

**A**

**WINTER TRAINING REPORT**

**ON**

***"PORTFOLIO MANAGEMENT OF CNX MIDCAP  
COMPANIES"***

**AT**

***KOTAK SECURITIES LTD.  
SURAT***

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT IN THE MBA  
DEGREE OF  
VEER NARMAD SOUTH GUJARAT UNIVERCITY, SURAT.**

**SUBMITTED BY:**

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**GUIDED BY:**

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**G.I.D.C. RAJJU SHROFF ROFEL INSTITUTE OF MANAGEMENT  
STUDIES G.I.D.C. VAPI  
2006-07**

## **STUDENT DECLARATION**

I undersigned, **Ankit S. Lapsiwala** declare that this project report entitled, "**Portfolio Management of CNX Midcap Companies**", is the result of my own research work carried out during December 2006 to January 2007 and has not been previously submitted to any other university / institutions for any other examination and for any other purpose by any other person.

I will not use this project report in future to use as submission to any other university, institutions or any publisher, without written permission of my guide.

I also promise not to allow / permit any other persons to copy / publish any part / full material of this report in any form.

If I am found / caught as defaulter of any declaration, I know that my present or future submission may become invalid, and / or I may not be permitted to appear in the final exam in the college or institutes, wherever I am studying.

**Ankit S. Lapsiwala**  
**MBA-Finance**

# CERTIFICATE

This is to certify that **Mr. Ankit S. Lapsiwala** has satisfactorily completed the project work entitled, “**Portfolio Management of CNX Midcap Index Companies**”. Based on the declaration made by the candidate and my association as a guide for carrying out this work, I recommended this project report for evaluation as a part of the MBA programme of Veer Narmad South Gujarat University.

*Place:*

*Date:*

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**(Mr. Sameer Rohadia)**

The project is forwarded for evaluation to Veer Narmad South Gujarat University, Surat for viva-voce.

**Place:**

**Date:**

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**(Dr. R.S. Shah)**

## **ACKNOWLEDGEMENT**

The success of any task lies upon the efforts made by a person but it cannot be achieved without co-operation of others. So I would like to thank G.I.D.C. Rajju Shroff ROFEL Institute of Management Studies, Vapi, for giving me the opportunity of doing this project as a special subject and provides such a wonderful platform to represent ourselves as MBA students.

I am grateful to Kotak Securities Ltd. Surat for giving me the opportunity for doing the projects on “**Portfolio Management of CNX Midcap Companies**” in their esteemed organization. I owe our genuine thanks to **Mr. Mrugesh Panchal (Branch Manager)**, for doing project at their organization.

My acknowledgement remains incomplete without great thanking to **Mr. Sunil Modha (Relationship Manager)** who provided me with invaluable help in all form during my endeavors. Special thanks to **Mr. Anand Malavia (Dealer)** and **Mr. Manish (Dealer)**, for providing all the requisite help despite his busy schedule.

As an institute side, it is my great pleasure to have this opportunity to express my regrets and sense of gratitude to my guide **Mr. Sameer Rohadia**. It is due to his encouragement, valuable guidance and direction for this project work, which would not be finished without his help.

I delivered my special thanks to my family members and friends for their constant support during the project.

**Ankit S. Lapsiwala**  
**MBA-Finance**

## EXECUTIVE SUMMARY

This project report on “**Portfolio Management of CNX Midcap Companies at Kotak Securities Ltd., Surat**” is based on understanding portfolio management, which is taking place in the stock market. Kotak being the market leader in PMS, which is having corpus 3200 crore out of 6200 crore total market corpus. Under project I have done marketing of Trading and Demat account and made IPO sub-broker. So this helps in understanding how practically the market works.

Under project title firstly I find out 9 securities, which has made technical break out in CNX Midcap Index. Company selection is based on return and beta of that security also. On the basis of Sharpe Model of optimum portfolio, only 6 companies remained in my portfolio out of 9 companies. I found out the risk and return trade-off, beta, systematic and unsystematic risk, correlation between security and market and between two securities also, and covariance of security and market also. After which, the selected companies under portfolio, I found out the portfolio return and risk on the basis of Markowitz and Sharpe Single Index Model.

The companies consist of 6 securities are evaluated on the basis of fundamental and technical analysis. Fundamental analysis is worked on economic analysis, industry analysis and company analysis, and also finds out target price of such security. While under technical analysis, six companies are evaluated based on chart pattern, trend lines and various market indicators, and for each company new price has been found out.

I might add here that the project highlights the important points as to in which Midcap companies, an investor should invest in order to get a profitable return, which can be seen from the targeted price of fundamental and technical analysis.

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## Chapter - 1

### COMPANY PROFILE

The Kotak Mahindra Group was born in 1985 as Kotak Capital Management Finance Limited. Uday Kotak, Sidney A. A. Pinto and Kotak & Company promoted this company. Industrialists Harish Mahindra and Anand Mahindra took a stake in 1986, and that's when the company changed its name to Kotak Mahindra Finance Limited. Since then it's been a steady and confident journey to growth and success.

**Kotak Securities Ltd.**, is one of India's largest brokerage and securities distribution house in India. Over the years Kotak Securities has been one of the leading investment broking houses catering to the needs of both institutional and non-institutional investor categories with presence all over the country through franchisees and co-ordinates. Kotak Securities Ltd. offers online (through [www.kotaksecurities.com](http://www.kotaksecurities.com)) and offline services based on well-researched expertise and financial products to the non-institutional investors.

Kotak Securities Limited is the world of Capital Markets where everything newsworthy exists only in the present moment and where knowing the importance of timing, sentiments and strategic forecasting makes the difference between profit and loss.

Kotak Securities Limited, a strategic joint venture between Kotak Mahindra Bank and Goldman Sachs (holding 25% - one of the world's leading investment banks and brokerage firms) is India's leading stock broking house with a market share of 7 - 8 %.

Kotak Securities Limited is one of the larger players in distribution of IPOs - it was ranked number One in 2003-04 as Book Running Lead Manager in public equity offerings by PRIME Database. It has also won the "Best Equity House" Award from **Finance Asia** - April 2004.

The Company has a full-fledged Research division involved in macro economic studies, Sectoral research and Company specific equity research combined with a strong and well networked sales force which helps deliver current and up-to-date market information and news.

Kotak Securities Limited is also a depository participant with National Securities Depository Limited (NSDL) and Central Depository Services Limited (CDSL) providing

dual benefit services wherein the investors can use the brokerage services of the Company for executing the transactions and the depository services for settling them.

Kotak Securities has 122 branches servicing more than 1,70,000 customers and coverage of 187 cities. Kotaksecurities.com, the online division of Kotak Securities Limited offers Internet Broking services and also online IPO and Mutual Fund Investments. Kotak Securities Limited manages assets over 2500 cores of Assets under Management (AUM).

Kotak securities provide portfolio Management Services, catering to the high end of the market. Portfolio Management from Kotak Securities comes as an answer to those who would like to grow exponentially on the crest of the stock market, with the backing of an expert.

Kotak Securities Limited manages assets over Rs. 1700 crores through it's Portfolio Management Services (PMS) servicing high net worth clients with a large investible surplus through its preferred client services in the mass affluent and wealth management segments.

The company has a full-fledged research division involved in Macro Economic studies, Sectoral research and Company Specific Equity Research combined with a strong and well networked sales force which helps deliver current and up to date market information and news.

#### **AWARDS GRAB BY KOTAK SECURITIES LTD.**

- ✎ Prime Ranking Award (2003-04) - Largest Distributor of IPOs
- ✎ Finance Asia Award (2004)- India's best Equity House
- ✎ Finance Asia Award (2005)-Best Broker in India
- ✎ Euromoney Award (2005)-Best Equities House in India
- ✎ Finance Asia Award (2006) - Best Broker in India
- ✎ Euromoney Award (2006) - Best Provider of Portfolio Management in Equities



## **KOTAK SECURITIES RESEARCH CENTER**

Kotak Securities Research Center is a special research cell where some of India's finest financial analysts bring you intensive research reports on how the stock market is faring, when is the right time to invest, when to execute your order and more. KSL provides both type of research reports.

- **Fundamental Research reports**
  - a. Intraday calls
  - b. Special Reports
  - c. Market Mornings
  - d. Daily Market Brief
  - e. Sectoral Report
  - f. Stock Ideas
  - g. Derivatives Reports
  - h. Portfolio Advices
- **Technical Research reports**
  - a. Weekly Technical Analysis

Depending on what kind of investor you are, Kotak Securities Ltd. (KSL) brings customers from fundamental or basic research and technical research. As an investor with Kotak Securities, Customers get access to these research reports exclusively. Customers get access to the following reports. Research process is given below.

## **PRODUCTS OFFERED BY KOTAK SECURITIES LIMITED**

**1) Portfolio Management Services [PMS]:** KOTAK Securities is among the largest private client asset managers in the Country today with an equity asset base of around 1700 crores (US\$ 400 million). Kotak clients include some of the most affluent families and high net worth individuals in the Country and customer assets under management rival some of the larger mutual funds in India.

**2) Margin Trading Facility**

**3) Demat Account Facility**

**4) IPOs**

**5) Mutual Funds**

## **Chapter – 2**

### ***METHODOLOGY OF THE PROJECT***

I have been preparing the project report on “***Portfolio Management of CNX Midcap Companies at Kotak Securities Ltd., Surat***” on the basis of optimum portfolio preparation, fundamental analysis, and technical analysis, ratio analysis on year basis and quarterly analyses. The portfolio optimization is totally a calculative work. The basic methodology that I have undergone for this project is as follows:

#### **Problem Statement:**

The main objective is whether investment in CNX Midcap companies is more rewarding or not. And if securities are more rewarding, can it be possible to prepare portfolio from the Midcap companies.

#### **Objectives**

- To prepare portfolio, which is barometer of market, provide maximum return at a given level of risk.
- To find out target price, based on technical and fundamental analysis, of securities included in portfolio.
- To discover the fundamental analysis tool to estimated the true value of a securities. This price will be compared to the price at which the market players offer to sell or buy the securities, as it is overvalues or undervalued.
- To evaluate the CNX Midcap companies, whether they are given good return in selected portfolio or demanded by the customer in the market.

#### **Research Design:**

Project is totally based on descriptive research. It is prepared on more structured way to find out problem question. Under such descriptive research I have gone through observational studies for technical analysis, calculative study for target price deciding and risk and return for optimum portfolio preparation

#### **Data Collection Method**

The data are collected from the primary (observation) and secondary sources.

## Source of Data

Under Fundamental Analysis, economy analysis is made from survey's data, collected from ministry of finance. Industry analysis was carried form the various research report prepared by the government of India. The company analysis is done from a director's report as well as data disclosed on site [www.kotak.com](http://www.kotak.com).

Under Technical Analysis, various theoretical data are collected from [www.leavittbrothers.com](http://www.leavittbrothers.com). While various charts are collected from [www.indibulls.com](http://www.indibulls.com).

For portfolio preparation, needs various prices of Midcap securities. Such prices are collected from historical data of [www.nseindia.com](http://www.nseindia.com). And after deriving such prices, for evaluating risk return trade-off, formulas are taken from Securities Analysis and Portfolio Management- Fischer Jordan.

## Sampling:

I have mainly concentrated on convenience sampling. Because I found selected sources is viable enough to provide the fundamental and technical analysis. Following companies are selected based on: a) Have technical break out and fundamentally strong. b) Giving good returns. c) Reporting good volumes in last couple of months. So selected companies are as follows:

No.	Company Name	Industry
1	Kalpataru Power Transmission Ltd	Transmission Line Towers / Equip.
2	Aurbindo Pharma Ltd.	Pharmaceuticals - Bulk Drugs & Formin
3	Hindustan Construction Company Ltd.	Construction
4	India Cements Ltd.	Cement
5	Madras Cements Ltd.	Cement
6	Strides Arcolab Ltd.	Pharmaceuticals - Bulk Drugs & Formin
7	Thermax Ltd.	Engineering
8	Titan Industries Ltd.	Watch, Jewellery, Miscellaneous
9	Voltas Ltd.	Diversified

## Analysis Techniques

### 1) Optimum portfolio preparation

- a. Finding expected risk and return of each securities and CNX Midcap Index (market)
- b. Beta, correlation, covariance of securities to the market.
- c. Systematic and unsystematic risk of each securities.

- d. Finding cutoff rate for selection of securities and on that basis finding weights of securities for investment in portfolio for optimization.

## **2) Fundamental Analysis**

- a. Economy Analysis
- b. Industry Analysis
- c. Company Analysis
  - i. Ratio Analysis
  - ii. Annual and Quarterly results Analysis
  - iii. Estimating Target price for selected securities under optimum portfolio.

## **3) Technical Analysis**

- a. Chart Patterns
- b. Trend lines (Measuring Speediness of securities)
- c. Market Indicators
  - i. Moving Average Crossover (20-50 days cuttings)
  - ii. Price Oscillator (2-10 days cuttings)
  - iii. Price Rate of Change (ROC)
- d. Estimating target price based on previous support and resistance level
- e. Deriving new support and resistance level for future intraday trading.

## **Chapter – 3**

### ***PORTFOLIO MANAGEMENT***

Individual securities have risk-return characteristics of their own. Portfolio, which is combination of securities, may or may not take on the aggregate characteristics of their individual parts. Portfolio analysis considers the determination of future risk and return in holding various blends of individual securities.

Under portfolio, risk defines as the standard deviation around the expected return. The simple fact that securities carry differing degrees of expected risk leads most investors to the notion of holding more than one securities at a time, in an attempt to spread risks by not putting all their eggs into one basket.

Diversification of one's holdings is intended to reduce risk in an economy in whichever asset's returns are subject to some degree of uncertainty. Most investors hope that if they hold several assets, even if one goes bad, the other will provide some protection from an extreme loss. Best diversification comes through holding large numbers of securities scattered across industries.

#### **CNX Midcap Index**

The medium capitalised segment of the stock market is being increasingly perceived as an attractive investment segment with high growth potential. The CNX Midcap Index has a base date of Jan 1, 2003 and a base value of 1000. All constituents of the CNX Midcap Index must have a minimum listing record of 6 months. In addition, all candidates for the Index are also evaluated for trading interest, in terms of volumes and trading frequency. All companies in the CNX Midcap Index have a minimum track record of three years of operations with a positive net worth. A company which comes out with a IPO will be eligible for inclusion in the index, if it fulfills the normal eligibility criteria for the index for a 3 month period instead of a 6 month period.

### **Selection of companies**

Few companies are selected in the portfolio from the CNX Midcap Index. The reason behind selection from the Midcap is that there is large number of securities in market, which gives higher return apart from Nifty or Sensex. Now a days some of the investor does not know even about the name of Midcap companies, hence they are not considering such securities in their portfolio, which can more reward oriented.

Here out of CNX Midcap 100 Index, 9 companies are selected from the different sectors. Such companies are reported a good volume as well as return in last 5 to 7 months. Selection is manly due to such companies have passed the stage of technical break out and they are on lifetime high basis. Such companies are;

<b>No.</b>	<b>Company Name</b>	<b>Industry</b>
<b>1</b>	Kalpataru Power Transmission Ltd	Transmission Line Towers / Equip.
<b>2</b>	Aurbindo Pharma Ltd.	Pharmaceuticals - Bulk Drugs & Formin
<b>3</b>	Hindustan Construction Company Ltd.	Construction
<b>4</b>	India Cements Ltd.	Cement
<b>5</b>	Madras Cements Ltd.	Cement
<b>6</b>	Strides Arcolab Ltd.	Pharmaceuticals - Bulk Drugs & Formin
<b>7</b>	Thermax Ltd.	Engineering
<b>8</b>	Titan Industries Ltd.	Watch, Jewellery, Miscellaneous
<b>9</b>	Voltas Ltd.	Diversified

## Chapter – 4

### **ANALYSIS & FINDINGS**

Now this companies which I have selected, are they really going to offer the investor a good return. So for that, investor should have to find out the risk and return profile of each securities, how they are moving as the change in CNX Midcap index. So once it found than the investor must evaluate such securities by Sharpe optimum portfolio model, which will say what should be the size of your portfolio as well as weight of investment for particular securities. So Risk and return of such securities are as follows.

Company	$R_i$	$\sigma_i$	Alpha	$\beta_i$	Variance $\sigma_i^2$	Systematic Risk	Unsys. Risk ( $e^2$ )	Corr. to Market	Cov. to Market
Kalpataru	0.38	1.95	0.23	0.68	3.81	0.58	3.22	0.39	0.86
Madras	0.36	1.93	0.16	0.90	3.71	1.01	2.70	0.52	1.12
Thermax	0.35	2.38	0.14	0.96	5.64	1.16	4.48	0.45	1.21
Voltas	0.33	3.19	0.04	1.29	10.20	2.08	8.12	0.45	1.61
Indiacem	0.36	2.42	0.02	1.51	5.85	2.84	3.01	0.70	1.89
Titan	0.32	2.52	0.01	1.37	6.33	2.36	3.97	0.61	1.72
Aurbindo	0.20	1.12	-0.014	0.95	3.18	1.14	2.04	0.60	1.20
Strides	0.24	2.60	-0.002	1.07	6.78	1.42	5.36	0.46	1.34
HCC	0.30	3.04	-0.091	1.75	9.25	3.83	5.42	0.34	2.19
Market (Midcap)	0.22	1.12		1	1.25				

#### Disclosure

1. Above all data are calculated on the basis of prices of each securities of 3<sup>rd</sup> June 2006 to 17th January 2007.
2. Cov. to Market indicates covariance between securities and CNX Midcap index.
3. Corr. to Market indicates correlation between securities and CNX Midcap index.
4. All the above details are shown in the annexure

(A)

## **SIMPLE SHARPE PORTFOLIO OPTIMIZATION**

The construction of an optimal portfolio is simplified if a single number measures the desirability of including a stock in the optimal portfolio. The desirability of any stocks directly related to its excess return-to-beta ratio. If stocks are ranked by excess return to beta (from highest to lowest), the ranking represents the desirability of any stock's inclusion in a portfolio. The number of stocks selected depends on unique cutoff rate such that all stocks with higher ratio of  $(R_i - R_f)/\beta_i$  will be included and all stocks with lower ration excluded.

### **Step – 1 Ranking Securities**

$$\text{Excess return to beta ratio} = \frac{R_i - R_f}{\beta_i}$$

$R_i$  = Expected return on stock i

$R_f$  = Return on a riskless asset

$\beta_i$  = Expected change in the rate of return on stock i associated with a 1% change in the market return

Current Risk Free Rate – 7.25%

Particulars	Return (%)	$(R_i - R_f)$	$\beta_i$	Unsys. Risk ( $e^2$ )	Excess Return to $\beta_i$ $(R_i - R_f)/\beta_i$	Rank
Kalpataru Power	38	30.75	0.68	3.22	45.22	1
Madras Cements	36	28.75	0.9	2.7	31.94	2
Thermax	35	27.75	0.96	4.48	28.91	3
Voltas	33	25.75	1.29	8.12	19.96	4
India Cements	36	28.75	1.51	3.01	19.04	5
Titan	32	24.75	1.37	3.97	18.07	6
Strides Arcolab	24	16.75	1.07	5.36	15.65	7
Aubindo Pharma	20	12.75	0.95	2.04	13.42	8
HCC	30	22.75	1.75	5.42	13.00	9

As seen above table here Excess returns to beta ratio are already ranked from highest to lowest. So selecting the optimal portfolio involves the comparison of  $(R_i - R_f)/\beta_i$  with  $C^*$ . Here we have to find out cutoff rate, which helps in selecting securities in our optimum portfolio. And securities whose excess return to beta ratio is lower than the cutoff rate, are excludes from our portfolio.



## Step – 2 Establishing Cutoff Rate

For a portfolio of  $i$  stock,  $C$  is given by:

$$C_i = \frac{\sigma_m^2 \sum_{i=1}^i \frac{(R_i - R_f)/\beta_i}{\sigma_{ei}^2}}{1 + \sigma_m^2 \sum_{i=1}^i \frac{\beta_i^2}{\sigma_{ei}^2}}$$

Where

$\sigma_m^2$  = Variance in the market index

$\sigma_{ei}^2$  = Variance of a stock's movement that is not associated with the movement of the market index; that is the stock's unsystematic risk.

Market Variance ( $\sigma_m^2$ ) = 1.25

Particulars	$(R_i - R_f)/\beta_i$	$((R_i - R_f)/\beta_i) / \sigma_{ei}^2$	$\beta_i^2 / \sigma_{ei}^2$	$\sum ((R_i - R_f)/\beta_i) / \sigma_{ei}^2$	$\sum \beta_i^2 / \sigma_{ei}^2$	$C_i$
Kalpataru Power	45.22	6.49	0.14	6.49	0.14	6.88
Madras Cements	31.94	9.58	0.30	16.08	0.44	12.93
Thermax	28.91	5.95	0.21	22.02	0.65	15.20
Voltas	19.96	4.09	0.20	26.11	0.85	15.79
India Cements	19.04	14.42	0.76	40.54	1.61	16.81
Titan	18.07	8.54	0.47	49.08	2.08	17.01
Strides Arcolab	15.65	3.34	0.21	52.42	2.30	16.92
Aurbindo Pharma	13.42	5.94	0.44	58.36	2.74	16.48
HCC	13.00	7.35	0.57	65.70	3.31	16.00

All securities, whose excess return-to-beta ratio is above the cutoff rate, are selected and all whose ratios are below are rejected.

The value of  $C^*$  is computed from the characteristics of all of the securities that belong in the optimum portfolio. So here first 6 companies are those whose excess return to beta ratio are more than  $C_i$ . Now to determine  $C^*$ , we will take the last securities as per ranked which is proving our condition i.e. excess return to beta more than that of  $C_i$ . So the cutoff rate will be  $(C^*) = 17.01$ .

### **Step – 3 Arriving at the Optimal Portfolio**

Once we know which securities are to be included in the optimum portfolio, we must calculate the percent invested in each securities. The percentage invested in each securities is:

$$X_i = \frac{Z_i}{\sum_{i=1}^N Z_j}$$

Where

$$Z_i = \frac{\beta_i}{\sigma_{ei}^2} \left[ \frac{R_i - R_f}{\beta_i} - C^* \right]$$

The second expression determines the relative investment in each securities, and the first expression simply scales the weights on each securities so that they sum to 1 (ensure full investment).

Particulars	$\beta_i / \sigma_{ei}^2$	$(R_i - R_f) / \beta_i$	$Z_i$	Weight of investment ( $X_i$ )
<b>Kalpataru Power</b>	0.21	45.22	5.96	0.39
<b>Madras Cements</b>	0.33	31.94	4.98	0.32
<b>Thermax</b>	0.21	28.91	2.55	0.17
<b>Voltas</b>	0.16	19.96	0.47	0.03
<b>India Cements</b>	0.50	19.04	1.02	0.07
<b>Titan</b>	0.35	18.07	0.36	0.02
<b>Total (<math>Z_j</math>)</b>			<b>15.34</b>	<b>1.00</b>

Dividing each  $Z_i$  by the sum of the  $Z_i$ , we would invest 0.39 (39%) of our funds in Kalpataru Power, 32% in Madras Cement, 17% in Thermax, 3% in Voltas, 7% in India Cement and 2% in Voltas.

The characteristics of a stock market make it desirable can be determined before the calculation of an optimal portfolio is begun. The desirability of any stock is solely a function of its excess return to beta ratio.

## Risk and Return of Optimum Portfolio.

There are six securities in optimum portfolio. So following formulas are used to find out risk and return profile for the securities.

Company	$R_i$	$\sigma_i$	Alpha	$\beta_i$	Variance $\sigma_i^2$	Systematic Risk	Unsys. Risk ( $e^2$ )	Corr. to Market	Cov. to Market
<b>Kalpataru</b>	0.38	1.95	0.23	0.68	3.81	0.58	3.22	0.39	0.86
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<b>Thermax</b>	0.35	2.38	0.14	0.96	5.64	1.16	4.48	0.45	1.21
<b>Voltas</b>	0.33	3.19	0.04	1.29	10.20	2.08	8.12	0.45	1.61
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<b>Titan</b>	0.32	2.52	0.01	1.37	6.33	2.36	3.97	0.61	1.72
<b>Market (Midcap)</b>	0.22	1.12			1.25				

### Disclosure

5. Above all data are calculated on the basis of prices of each securities of 3<sup>rd</sup> June 2006 to 17th January 2007.
6. Cov. to Market indicates covariance between securities and CNX Midcap index.
7. Corr. to Market indicates correlation between securities and CNX Midcap index.

## Markowitz Risk Return

$$\text{Return on Portfolio } (R_p) = \sum_{i=1}^N X_i R_i$$

$$\text{Variance on Portfolio } (\sigma_p^2) = \sum_{i=1}^N \sum_{j=1}^N X_i X_j \text{Cov}_{ij}$$

Sr. No.	Company	Standard Deviation( $\sigma_i$ )	Expected Return ( $R_i$ )	Weight ( $X_i$ )
1	Kalpataru Power	1.95	0.38	0.39
2	Madras Cements	1.93	0.36	0.32
3	Thermax	2.38	0.35	0.17
4	Voltas	3.19	0.33	0.03
5	India Cements	2.42	0.36	0.07
6	Titan	2.52	0.32	0.02

Particulars	Covariance	Particulars	Correlation
Cov <sub>12</sub>	1	r <sub>12</sub>	0.27
Cov <sub>13</sub>	1.41	r <sub>13</sub>	0.3
Cov <sub>14</sub>	1.81	r <sub>14</sub>	0.29
Cov <sub>15</sub>	1.11	r <sub>15</sub>	0.24
Cov <sub>16</sub>	0.47	r <sub>16</sub>	0.1
Cov <sub>23</sub>	1.35	r <sub>23</sub>	0.3
Cov <sub>24</sub>	1.78	r <sub>24</sub>	0.29
Cov <sub>25</sub>	1.95	r <sub>25</sub>	0.42
Cov <sub>26</sub>	1.37	r <sub>26</sub>	0.28
Cov <sub>34</sub>	1.38	r <sub>34</sub>	0.18
Cov <sub>35</sub>	1.51	r <sub>35</sub>	0.26
Cov <sub>36</sub>	1.55	r <sub>36</sub>	0.26
Cov <sub>45</sub>	3.26	r <sub>45</sub>	0.42
Cov <sub>46</sub>	1.94	r <sub>46</sub>	0.24
Cov <sub>56</sub>	2.59	r <sub>56</sub>	0.43

Sr. No.	$X_i^2$	$\sigma_i^2$
1	0.150901	3.8025
2	0.105365	3.7249
3	0.027629	5.6644
4	0.000935	10.1761
5	0.004408	5.8564
6	0.000564	6.3504

Particulars	
Portfolio Return	36.42 %
Portfolio Variance	2.029536
Portfolio Risk	1.424618

## Sharpe Single Index Model and Risk & Return

Sharpe suggested that a satisfactory simplification would be to abandon the covariance of each securities with each other securities and to substitute information on the relationship of each securities to the market. The return for each securities is represented by the following equation:

$$R_i = \alpha_i + \beta_i I$$

$R_i$  = Expected Return on securities  $i$ .

$\alpha_i$  = Expected Return on securities –  $\beta_i \times$  Expected Return on market.

$I$  = Expected Return on Midcap Index (Market)

$$\text{Return on Portfolio } (R_p) = \sum_{i=1}^N X_i (\alpha_i + \beta_i I)$$

$$\text{Variance on Portfolio } (\sigma_p^2) = \left[ \left( \sum_{i=1}^N X_i \beta_i \right)^2 \sigma_i^2 \right] + \left[ \sum_{i=1}^N X_i^2 e^2_i \right]$$

$e^2_i$  = Unsystematic risk on each securities

Expected Variance of Market = 1.25

Expected return on market = 0.22

	$\alpha_i$	$\beta_i$	$e^2_i$	$X_i$	$X_i \beta_i$	$X_i^2$	$X_i^2 e^2_i$
Kalpataru Power	0.23	0.68	3.22	0.39	0.264152	0.150901	0.4859
Madras Cements	0.16	0.9	2.7	0.32	0.29214	0.105365	0.284486
Thermax	0.14	0.96	4.48	0.17	0.159571	0.027629	0.123779
Voltas	0.04	1.29	8.12	0.03	0.039437	0.000935	0.007589
India Cements	0.02	1.51	3.01	0.07	0.100255	0.004408	0.013269
Titan	0.01	1.37	3.97	0.02	0.032544	0.000564	0.00224
	<b>Total of <math>(X_i \beta_i)</math></b>				<b>0.8881</b>	<b>Total of <math>(X_i^2 e^2_i)</math></b>	
	<b>Square of <math>(X_i \beta_i)</math></b>				<b>0.788722</b>	<b>0.917263</b>	

Particulars	
<b>Portfolio Return</b>	<b>36.27 %</b>
<b>Portfolio Variance</b>	<b>1.903165</b>
<b>Portfolio Risk</b>	<b>1.379553</b>

**(B)**

## ***FUNDAMENTAL ANALYSIS***

### **1) ECONOMY ANALYSIS**

#### **= Gross Domestic Product (GDP)**

India's economy is on the fulcrum of an ever-increasing growth curve. With positive indicators such as a stable 8 per cent annual growth, rising foreign exchange reserves of close to US\$ 166 billion, a booming capital market with the popular "Sensex" index topping the majestic 13,000 mark, the Government estimating FDI flow of US\$ 12 billion in this fiscal, and a more than 22 per cent surge in exports, it is easy to understand why India is a leading destination for foreign investment.

The economy has grown by 8.9 per cent for the April-July quarter of '06-07, the highest first-quarter growth rate since '00-01. The growth rate has been spurred by the manufacturing sector, which has logged an 11.3 per cent rise in Q1 '06-07, according to the GDP data released by the Central Statistical Organisation. It was 10.7 per cent in the corresponding period of the last fiscal year. The GDP numbers come just weeks after the monthly IIP growth figures have touched 12.4 per cent. Agriculture, which accounts for nearly a quarter of the GDP, has also grown by a healthy 3.4 per cent, unchanged from the corresponding period of last fiscal. Other propellers of GDP growth for the first quarter this fiscal have been the trade, hotels, transport and communications sector which grew by 9.5 per cent and construction, which grew by 13.2 per cent. In the corresponding period of last fiscal, these sectors grew by 11.7 per cent and 12.4 per cent, respectively.

Electricity also grew by 5.4 per cent this first quarter as opposed to 7.4 per cent in the same period last year. The overall growth in this sector was fuelled by growth in July and August. The services sector also grew by 10.6 per cent in the first quarter of '06-07. It was only 9.8 per cent last year in the same period.

There has been exceptional growth rate in some specific industries, like commercial vehicles at 36 per cent, telephone connections, by 48.9 per cent and passenger growth in civil aviation by 32.2 per cent.

#### GDP of last 3 years

Year	GDP Growth Rate
2005-06	8.1%
2004-05	7.5%
2003-04	8.5%

#### Some highlights:

- India has more billionaires than China. This year there were 15 billionaires in China but last year in India, there were 20 billionaires, according to the Forbes magazine.
- India has emerged as the world's fastest growing wealth creator, thanks to a buoyant stock market and higher earnings.
- A number of Indian companies surpassed last year's net profit in just six months of the current fiscal, reflecting an accelerated growth in corporate earnings.
- Forty-four per cent of Top 100 Fortune 500 companies are present in India.
- With its manufacturing and services sector on a searing growth path, India's economy may soon touch the coveted 10 per cent growth figure.

#### = Index of Industrial Production (IIP)

Industrial growth is India's merchandise exports (in US dollar terms and customs basis) have been recording annual growth rates of more than 20 per cent since 2002-03. One of the factors which negatively impacted the markets in December 2006 was the IIP growth reported for October 2006. The General Index of Industrial Production for October 2006 stood at 237.7, a 6.2% growth over the corresponding previous month. This was far lower than the consensus estimates and acted as a trigger to a near 1000 points fall in the Sensex. The cumulative growth for April-October 2006 was 10.3% over the corresponding period of the previous year.

Manufacturing which has about 80% weights in IIP, witnessed a 6.0% growth during the month. The electricity sector recorded a growth of 9.7%. The relatively lower growth rate in manufacturing for October 2006 was mainly due to the consumer durables and non-durables sectors, where production grew by 2.4% and a negative 0.4%, respectively. This period sees lower industrial activity due to higher number of non-working days and also drops in demand.

In 2004-05, such exports grew by 26.2 per cent – the highest annual growth rate in the last three decades – to cross US\$ 80 billion. **Five major sectors – gems and jewellery, engineering goods, petroleum products, ores & minerals, and chemicals and related products – were the key drivers.** Despite recording a somewhat lower rate of growth of 18.9 per cent, exports during 2005-06 have already reached US\$ 92 billion.

Services exports grew by 71 per cent in 2005-06 to US\$ 46 billion, and 75 per cent to US\$ 32.8 billion in April-September, 2006. In 2005-06, software service exports grew by 34.4 per cent to US\$ 17.2 billion and by 32 per cent to US\$ 10.3 billion in the first half of 2005-06.

India's foreign exchange reserves were US\$ 166.2 billion as on October 20, 2006, showing an increase of US\$ 14.5 billion over end-March 2006 level.

Industrial Growth

### **= Inflation**

During the month, inflation (wholesale price index-WPI) remained within the Government's target range of 5-5.5%. This is the eighth straight week where inflation has remained above 5%. This is of concern, more so as it comes in the wake of softer crude prices. While crude prices are higher on a YOY basis, they have significantly come down from their heights of \$ 78 a barrel.

While WPI is in the target range of 5-5.5%, the consumer Price Index stands higher at about 6.8%. This is due to the consistent high prices of primary and food articles.

The government is undertaking several efforts to reign in prices. It has already made attempts in the past to control prices of commodities like, sugar, cement etc.



the government has indicated that inflation for FY07 can be contained within 5-5.5%.

### **= Exchange Rate**

The rupee appreciated by about 1.6% against the US dollar during the month December 2006. This is the third successive monthly gain for the rupee against the US dollar. The rupee gained on the back of sustained flow of FII monies and a reduction in crude prices. With crude imports accounting for nearly a third of the total imports into India, the demand for dollars was that much lower.

### **= Increase in CRR.**

The Reserve Bank of India raised the cash reserve ratio by 50 basis points to 5.5% in two phases, 25 basis points with effect from January 6, 2007. The hike in CRR is expected to suck out approximately Rs. 135 bn from the banking system. This move came in the backdrop of higher inflation and robust growth in GDP. It was in line with RBI's earlier effort to slow down the overall credit growth and canalize it to more productive sectors of the economy.

### **= Export Import**

On the external front, exports touched the magical figure of \$85 billion in till December 2006 while imports were of the order of \$120 billion. Of these oil imports comprised the major portion worth \$43.8 billion as compared to \$21.8 billion in fiscal year 2005. Owing to high import growth, the trade deficit has widened to \$39.6 billion. For the current fiscal, the Government has targeted an export growth of 20% i.e. to \$120 billion.

### **= Fiscal Deficit**

As regards Fiscal consolidation, the Government has been able to rain in the fiscal deficit to 3.9% of GDP in December 2006 as against the budgeted estimate of 4.3% reflecting the discipline in Government spending.

### **= Monsoon (Economy Review for Kalpataru Power)**

Generation of Biomass power is fully dependent on availability of agriculture residue (mustard husk & cotton stalk), which is seasonal in nature. The

inadequate winter rains and/or alternate use of residue can affect the adequate availability and prices of fuel to the plant.

### **= FIIs**

Foreign institutional investors' (FIIs) net investments in equities crossed US\$ 7 billion in calendar 2006. FII net investment till 6 November 2006 has been US\$ 7.08 billion, according to the Securities and Exchange Board of India (SEBI).

As many as 151 new FIIs have opened their offices in India during first 10 months. In the corresponding period last year, 166 new FIIs entered India. The total numbers of FIIs that have set shops in India are 974 as on November 7.

## **INDUSTRY ANALYSIS**

### **1) Cement Industry**

The Indian cement industry is on a roll. Driven by a booming housing sector, global demand and increased activity in infrastructure development such as state and national highways, the cement industry has outpaced itself, ramping up production capacity, attracting the top cement companies in the world, and sparking off a spate of mergers and acquisitions to spur growth. The result of all this excited activity is:

- Net profit of the top 10 cement companies more than doubled during the quarter ended December 31, '06.
- Cement production has logged an impressive growth of 13.3 per cent in 2005-2006 compared to only 3.6 per cent in the previous year.
- Cement and clinker exports are poised to touch the 10-million tones (mt) mark by the end of 2006-07, further boosted by a 12 per cent rise in consumption in Gulf countries and massive redevelopment efforts in Iraq and Afghanistan.
- India is the second largest producer of cement in the world behind China (1.06 billion tones). In 2005, India produced 142 mt of cement, accounting for 6.4 per cent of global production of 2.22 billion tones. This position has been achieved because of India's sustained growth at an average rate of 8.1 per cent over the past two decades.

#### ***Housing and infrastructure boom***

The recent boom in the housing and construction industry in India has worked wonders for cement manufacturing companies as they registered an average growth of 95 per cent in their net profits for the quarter ended March 31, 2006.

- Major cement companies witnessed a 32 per cent surge in their sales volume and, across the board, companies reported higher production, higher sales and lower production costs.
- Ultra Tech Cement reported a whopping 1550 per cent rise in net profit at US\$ 17.69 million in the last quarter of 2005-06.

- Gujarat Ambuja grew by 109 per cent to US\$ 64.81 million
- ACC net profit rose 27 per cent to US\$ 50.17 million
- Sanghi Cement recorded a 455 per cent growth in net profit
- Mangalam Cements saw its bottomline swell by 173 per cent.

### *Mergers and Acquisitions*

The booming demand for cement, both in India and abroad, has attracted global majors to India. Within a short span of 2005-06, four of the top-5 cement companies in the world have entered India through mergers, acquisitions, joint ventures or greenfield projects. These include France's Lafarge, Holcim from Switzerland, Italy's Italcementi and Germany's Heidelberg Cements.

The Indian cement industry has also witnessed a flurry of mergers and acquisitions within the domestic players, bringing smaller players under the umbrella of larger companies, and larger companies coming under the umbrella of global players like Holcim and Heidelberg.

Some examples of the consolidation witnessed among domestic players in the recent past include:

- Gujarat Ambuja taking a stake of 14 per cent in ACC
- Gujarat Ambuja taking over DLF Cements and Modi Cement
- ACC taking over IDCOL.
- India Cement taking over Raasi Cement and Sri Vishnu Cement
- Grasim's acquisition of the cement business of L&T
- Grasim taking over Indian Rayon's cement division
- Grasim taking over Sri Digvijay Cements
- L&T taking over Narmada Cements

### **CEMENT INDUSTRY SCENARIO**

<b>Particulars</b>	<b>31 May 2006</b>	<b>30 June 2005</b>	<b>Growth</b>
Cement Production	141.80 M Ts.	127.60 M Ts.	11.20%
Domestic Sales	135.60 M Ts.	123.10 M Ts.	10.14%
Export Sales	6 M Ts.	4 M Ts.	50.00%
Export of Clinker	3.18 M Ts.	6 M Ts.	-47.00%
Consumption in South India	39.40 M Ts.	33.40 M Ts.	18.00%
Capacity Utilisation	90%	84%.	7.14%

In fact, excluding the latent capacity of 5 to 6 Million Tones in the industry, the effective capacity utilisation of the operating plants was above 93% and the industry had practically no further cement to offer. Shortages were reported in pockets of North, West and East during the last quarter of the financial year, resulting in a fillip to cement prices in the market. With anticipated 8 to 10% growth in demand for cement and with very little fresh capacity immediately on the anvil, the industry can be said to have entered a boom phase in the near to medium term.

Given the substantial increase in demand in the southern states, the capacity utilisation of the southern plants also increased from 78% In FY 2004-05 to 88% in FY 2005-06 and cement prices in the South have also picked up smartly since March'06. With the study conducted by National Council for Applied Economic Research forecasting a domestic demand of 213 Million Tones on an average growth scenario by 2010-11 of a Compounded annual growth rate of 8.6%, which calls for capacity creation of over 60 Million Tones over the next 5 years, all indications are that the cement industry is poised for a period of growth and profitability.

### **The Top Ten**

The consolidation of cement companies has led to the top 10 cement companies dominating cement production in India. As on June 2006:

1. **ACC** is the largest player with a capacity of 18.64 mtpa.
2. **UltraTech Cem Co Ltd.** now occupies the second slot with a capacity of 17 mtpa (which includes 1.5 mtpa of subsidiary Narmada Cement).
3. The **Gujarat Ambuja group** has emerged as the third largest player with a capacity of 14.86 mtpa.
4. **Grasim** ranks fourth with a capacity of 14.12 mtpa.
5. Other leading players include **India Cements, Jaypee group, Century Textiles, Madras Cements, Lafarge, and Birla Corp.**

## **2) Engineering Sector**

### **40 per cent growth in engineering exports likely**

The country's engineering exports were set to grow to \$24 billion in the current year, clocking a growth of 40 per cent on top of the export earnings of \$20 billion achieved in 2005-06. Mr. Nath said the engineering process outsourcing (EPO) services from India had the potential to exceed \$40 billion by 2020, raising the country's share in the EPO market from the extant 12 per cent to 30 per cent.

### **Engineering Sector**

The engineering sector is the largest segment of the overall Indian industrial sector. India has a strong engineering and capital goods base. The important groups within the engineering industry include machinery & instruments, primary and semi finished iron & steel, steel bars & rods, non-ferrous metals, electronic goods and project exports. The engineering sector employs over 4 million skilled and semi-skilled workers (direct and indirect).

The sector can be categorised into heavy engineering and light engineering segments. Heavy engineering segment forms the majority of the engineering sector in India. In the year 2003-04, out of the total engineering production of US\$ 22 billion, the heavy engineering market contributed over 80 per cent with the light engineering segment accounting for the remaining.

India has a well-developed and diversified industrial machinery/ capital base capable of manufacturing the entire range of industrial machinery. The industry has also managed to successfully develop advanced manufacturing technology over the years. Among the developing countries, India is a major exporter of heavy and light engineering goods, producing a wide range of items. The bulk of capital goods required for power projects, fertiliser, cement, steel and petrochemical plants and mining equipment are made in India. The country also makes construction machinery, equipment for irrigation projects, diesel engines, tractors, transport vehicles, cotton textile and sugar mill machinery.

### **Power Sector**

India's power market is growing faster than most of the other countries. With an installed generation capacity of 123 GW, generation of more than 600 billion kwh,

and a transmission & distribution network of more than 6.3 million circuit kms, India has today emerged as the fifth largest power market in the world compared to its previous position of eighth in the last decade.

The power system in India is organised as five geographical regions for administrative purposes, management of transmission systems (regional grids), load dispatch functions and for the purpose of balancing & settling of inter-state energy transactions. The five regional grids are connected by high voltage AC & DC transmission lines thus forming a unified national grid catering to the inter-state & inter-region transfer of electricity.

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## COMPANY ANALYSIS

### Kalpataru Power Transmission Ltd

Industry	Business Group	Mkt. Cap.	BSE Code	NSE Code
Transmission Line Towers / Equip.	Kalpataru	3174.30	522287	KALPATPOWR

Kalpataru Power Transmission (KPTL) was incorporated on 23 Apr.'81 as HT owner Structure and the name was changed to the present one on 4 Jan.'94. The promoters have interests in various companies, like Kalpataru Constructions, Kalpataru Holdings, Kalpataru Plaza, etc. Kalpataru Power Transmission is one of India's leading companies in the design, testing, fabrication, erection and construction of transmission lines (up to 800 KV) and sub-station structures on a turnkey basis across India and overseas. The company is publicly listed with a turnover of more than Rs. 2.70 Billion (USD 57 Million) and annual production of over 47,000 MTs. It is a part of the well-diversified USD 100 million Kalpataru Group. A modern plant in Gandhinagar, Gujarat, with a capacity of 54,000 MTs and employs the latest CNC machines and galvanizing bath for its production activity. In a short span of time, the company has exported tower parts over 80,000 MTs to Mexico, Peru, Turkey, Algeria, Malaysia, Philippines, Thailand, Vietnam, Bangladesh, UAE, Syria and Australia, out of total supplies of over 325,000 MTs till date. It has executed jobs for reputed international companies such as ABB, Alstom, EnelPower, Sumitomo, Downer, Cobra, etc. Besides strong design/ engineering capabilities, the company has its own state-of-the-art Testing and R & D Centre, one of the largest in the World, to test towers up to 800 KV. The company is technically pre-qualified for domestic and international tenders and has executed jobs funded by the World Bank, ADB, JBIC / OECF and Arab Fund. It is the first Indian company in the industry to receive the ISO 9001 Certification since 1994. The company employs over 350 professionals.

The Company strives to enhance its infrastructure capabilities and project management skills to retain its position as one of the leading EPC player in the Power T&D Sector in India and across the world.



In the domestic markets, the Company remains one of the largest and most reliable contractors for Power Grid Corporation of India Ltd., (PGCIL) with over 2000 Kms of 400 KV lines under execution. During the year the Company has set up a 100% Export Oriented Unit (EOU) for design, fabrication and galvanizing of Transmission line towers and structures thereof at a cost of Rs. 160 Million at a capacity of 30,000 MTs per annum. The Division will cater to higher export demand in the International markets particularly in Sub Saharan African countries and Middle East regions, where the Company is aggressively poised to improve its market share

The Company has secured orders worth Rs. 5.6 Billion (USD 125 Million) during the reporting year covering over 5,000 villages. The Company is hopeful of increasing its revenues in this segment significantly.

## **Industry Analysis**

### **1. POWER SECTOR SCENARIO**

#### **a. Power Generation & Transmission:**

- i. Power is a critical infrastructure for economic development and for improving the quality of life. Considering energy shortages in the country, the Government has embarked on a plan to add 33,000 MW of capacity in the public sector and 6,500 MW of capacity in the private sector in immediate few years. In addition to these five ultra mega power projects of 4,000 MW each are to be set up.
- ii. Inadequate investments in transmission and distribution infrastructure have resulted in power evacuation constraints from the generating stations of fuel rich regions, and therefore an effective inter regional grid network is required to be built. Accordingly, a perspective plan has been developed to build 30,000 MW inter regional transmission capability by 2012.

#### **b. Distribution and Rural Electrification:**

- i. Electricity has been one of the basic human. Accordingly, it is planned to cover all non-electrified households by the year 2012. In order to accelerate rural electrification, it has been proposed to treat Rural

Electrification as a basic minimum service in the Prime Ministers Gramodaya Yojana. As per Budget announcement, under 'Rajiv Gandhi Grameen Vidhyutikaran Yojana' 40,000 more villages will be electrified in 2006-07 as compared to 10,000 villages in 2005-06.

## **2. TRANSMISSION & DISTRIBUTION DIVISION**

### **a. Transmission Line (Domestic):**

- i. Transmission Line Sector, which is core business of the company, has been witnessing phenomenal growth. The Government of India has announced ambitious programme for rural electrification and has envisaged an investment of over 1,700 Billion up to year 2012. In addition to this, Power Grid Corporation of India Ltd. And State Electricity Boards have also proposed huge investment in 400 KV and above transmission lines.

### **b. Transmission Line (International):**

- i. Huge investments plan in transmission and distribution sector is expected by Oil & Gas driven economies of Middle East/ GCC, North Africa Countries like Algeria, Nigeria, Ethiopia, Libya and other sub Saharan Countries. Company has geared up to explore business potential in these countries. After completion of turnkey project in Algeria, Turkey and Zambia, Kalpataru Power is qualified across the power utilities across the world. The Company has already opened its representative office in Abu Dhabi to focus in Middle East region.

### **c. Capacity Additions:**

- i. The Company has set up 100% Export Oriented Unit (EOU) for design and manufacturing of Transmission line towers and structures thereof at a cost of approx. Rs. 160 Million at a capacity of 30,000 MT per annum. The unit will cater to higher export demand in the International market. The company has production capacity of 84,000 MT, which may be largest capacity in the World at a single location, providing significant cost advantages. The company is poised to remain one of the world's largest Tower manufacturers.

### 3. INFRASTRUCTURE DIVISION

a. Oil & Gas Sector Scenario:

- i. Additional production of natural gas from new fields is likely to commence from 2008-09. The infrastructure to transport additional natural gas quantities to the demand centre is required to be built afresh. It is projected that an estimated 7,000 Kms of gas pipelines and over 4,000 Kms of product and crude pipelines will be set up in the next 3-4 years, mainly by IOCL, BPCL, HPCL, GSPC, Reliance and GAIL.

b. Roads & Bridges Sector Scenario:

- i. Lot of four laning and six laning highways/ expressways are likely to be promoted in next 3-4 years under various National Highway Development Programmes where more private participation are sought. Kalpataru Power is considering entering into Road sector projects on selective basis.

#### Shareholding Pattern Of Company

Particulars	% Share Holding
Total Foreign	9.10
Total Institutions	18.64
Total Govt Holding	0.00
Total Non Promoter Corporate Holding	2.78
Total Promoters	63.69
Total Public & Others	5.80
<b>Totals</b>	<b>100.00</b>

## SEGMENT WISE TOTAL SALES

<b>Total Sales</b>	<b>2005-06</b>	
Export sales	702.7	
Domestic Sales	142.6	
<b>Total</b>	<b>845.3</b>	
<b>DIVISIONAL SALES</b>	<b>2005-06</b>	<b>2004-05</b>
<b>Transmission &amp; Distribution Division (T&amp;D) (66% Growth)</b>	<b>759.1</b>	<b>456.3</b>
<b>Infrastructure Division</b>		
<ul style="list-style-type: none"> <li>• Cross country project revenue (Bharat Petroleum Cur. Ltd.) 84.0 crore.</li> </ul>	<b>84.0</b>	
<ul style="list-style-type: none"> <li>• Terminal Station Job for GSPL. Project Revenue 36.4 crore</li> </ul>	<b>36.4</b>	
<ul style="list-style-type: none"> <li>• Oil &amp; Gas pipeline project</li> </ul>	<b>37.1</b>	<b>9.9</b>
<b>Real Estate Division</b>		
<ul style="list-style-type: none"> <li>• 'Kalpataru Habitat' the real estate residential project</li> </ul>	<b>48.2</b>	
<b>Bi-Mass Energy Division</b>		
<ul style="list-style-type: none"> <li>• Padampur Plant</li> </ul>	<b>18.1</b>	<b>13.2</b>

## INVESTMENTS: JMC PROJECTS (INDIA) LTD.

The Company has made investment in JMC by acquiring promoter's stake followed by public offer and market purchases till March 2005. Further the company made market purchases of shares by which as on 31st March 2006 the company's stake in JMC has risen to 49.90%. JMC is a strong civil contracting company with presence in the Factories, Buildings and Roads, Bridges segments. It bagged a prestigious cash contract order of Rs.419.0 crore from National Highway Authority of India (NHAI) for highway from Madurai to Trichy. Presently the company has order backlog of over Rs. 775.0 crore.

JMC Projects has announced that the company has allotted as a part of it right issue 24,89,420 shares constituting 15% of the share capital of the company to Kalpataru Power Transmission, and 1,07,959 shares to an individual on 28 November 2006. After the above said allotment, the shareholding of Kalpataru Power in the company has risen to 49.95% from 49.90%.

Kalpataru Power Transmission Ltd, on September 07, 2006 has decided to issue and allot 4,777,000 Equity Shares of Rs.10/- each at a premium of Rs.717.00 per equity share.

### Expansion Plan

Kalpataru is a turnkey player in design, fabrication, construction and erection of transmission lines and sub-station structures. The company has been actively participating in the rural electrification projects in states like Uttar Pradesh, Bihar, West Bengal and Harahan. The ongoing expansion plans in the domestic transmission line networks would turn beneficial for the company due to its dominant position in the transmission project business.

With its entry into the biomass power generation segment and, now, into pipeline infrastructure, the company has slowly diversified its business model without diluting its core competence in the transmission segment.

### Annual Result (Rs. in crore)(Rs. In crore)

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003	Mar 2002	%Change
Gross Sales	871.23	566.76	362.05	270.66	146.71	53.72
Excise Duty	30.85	24.92	17.32	0	0	23.80
<b>Net Sales</b>	<b>840.38</b>	<b>541.84</b>	<b>344.73</b>	<b>270.66</b>	<b>146.71</b>	<b>55.10</b>
Other Income	4.88	1.33	0.74	0.8	0.46	266.92
Total Income	845.26	543.17	345.47	271.46	147.17	55.62
Total Expenditure	725.97	482.84	312.05	245.9	131.49	50.35
<b>Operating Profit</b>	<b>119.29</b>	<b>60.33</b>	<b>33.42</b>	<b>25.56</b>	<b>15.68</b>	<b>97.73</b>
Interest	16.1	11.37	10.56	10.08	3.54	41.60
Gross Profit	103.19	48.96	22.86	15.48	12.14	110.76
Depreciation	8.79	5.5	4.52	3.09	3.01	59.82
Tax	27.54	13.9	1.67	3.31	1.67	98.13
Deferred Tax	0.33	0.84	2.55	0.13	0.12	-60.71
<b>PAT</b>	<b>66.53</b>	<b>28.72</b>	<b>14.12</b>	<b>8.95</b>	<b>7.34</b>	<b>131.65</b>
Extra-ordinary Items	0	0	0	0	0	0.00
Adjusted PAT	66.53	28.72	14.12	8.95	7.34	131.65
EPS	26.11	26.45	13	8.24	6.76	131.61
Dividend (%)	50	50	30	15	15	0.00
Equity share	2.65	1.086	1.086	1.086	1.086	0.00

- Sales and services income of the Company for the year 2005-06 was at Rs.871.2 Crore. This represents a growth of 54% over the company's revenues for 2004-05. The increase was largely on account of all-round

good performance by all the Segments of the business. The revenues of Power Transmission segment grew by 66%, Infrastructure segment grew by 275% and Biomass Energy segment grew by 38%.

- The operating profit for 2005-06 at Rs. 119.29 crore showed a remarkable improvement of 97.73% over the previous year on a comparable basis.
- Profit after tax stood at Rs. 66.53 crore as against Rs. 28.72 crore, which is a steep increase of 132%.
- Long term borrowing of the Company has increased by Rs. 75.0 Crore as against increase of Rs. 29.6 Crore in the previous year due to availment of fresh Long/Medium Term Loans. The total Debt/Equity ratio is at 1.39.
- During the year the Company has been rated PR1+ and CARE AA rating for its short term and long term fund raising of Rs. 250 Million each. The Company has 5A1 rating from Dun & Bradstreet.

## Ratio

	Mar 2006	Mar 2005	Mar 2004	Mar 2003
<b>Debt-Equity Ratio</b>	1.39	0.97	1.24	1.51
<b>Current Ratio</b>	1.57	1.71	2.14	2.52
<b>Total Assets</b>	2.17	2.53	1.77	1.33
<b>Debtors</b>	3.95	4.95	3.92	3.59
<b>OPM (%)</b>	<b>14.19</b>	<b>11.13</b>	<b>9.69</b>	<b>9.44</b>
<b>NPM (%)</b>	<b>7.92</b>	<b>5.30</b>	<b>4.10</b>	<b>3.31</b>
<b>EPS</b>	<b>26.11</b>	<b>26.45</b>	<b>13.00</b>	<b>8.24</b>
<b>ROCE (%)</b>	29.77	26.90	16.34	12.56
<b>RONW (%)</b>	39.62	25.24	15.45	11.04

- During the year, Company has achieved a record level of turnover of Rs. 871.2 Crore as against Rs. 566.8 crore in the previous year which shows a healthy growth of 54% for the year.
- Operating profit increased by 98% from Rs. 60.33 crore in 2004-2005 to Rs. 119.29 crore in 2005-2006 and Profit after tax increased by 132% from Rs. 28.72 crore in 2004-2005 to Rs. 66.53 crore 2005-2006.

## Target Price Evaluation

Particulars	Dec 2006	Sep 2006	Jun 2006	Mar 2006	TTM 31/12/06	% Chg Q307-Q207
Type	3Qtr	2Qtr	1Qtr	4Qtr		
Net Sales	393.53	306.61	302.56	361.38	<b>1364.08</b>	28.35
Other Income	4.31	1.1	0.67	2.19	<b>8.27</b>	291.82
Total Income	397.84	307.71	303.23	363.57	<b>1372.35</b>	29.29
Total Expenditure	332.9	261.56	254.07	311.28	<b>1159.81</b>	27.27
Operating Profit	64.94	46.15	49.16	52.29	<b>212.54</b>	40.72
Interest	7.52	5.85	5.52	5.55	<b>24.44</b>	28.55
Gross Profit	57.42	40.3	43.64	46.74	<b>188.10</b>	42.48
Depreciation	4.81	3.15	3.44	3.2	<b>14.60</b>	52.70
Tax	13.81	8.8	10.83	13.69	<b>47.13</b>	56.93
Deferred Tax	0	1.13	0.36	-1.45	<b>0.04</b>	-100.00
Reported Profit After Tax	38.8	27.22	29.01	31.3	<b>126.33</b>	42.54
Equity Share	2.65	2.65	2.65	2.65	<b>10.60</b>	0.00
EPS	14.64	10.27	10.95	11.81	<b>47.67</b>	42.54
<b>TTM EPS</b>	<b>47.67</b>					
<b>CMP</b>	<b>1196.85</b>					
<b>Company P/E</b>	<b>25.11</b>					
<b>Industry P/E</b>	<b>26.6</b>					

As seen last three quarters of Year 06-07, and if we want to forecast the expected sales and EPS of the company, we can do so by adding the last quarter of year 05-06 (Q4 0506), we can get the data for trailing twelve month (TTM). It shows that company will definitely go for the results that have been achieved in last quarter of 05-06. So from such we can get expected sales and EPS figures. Now we can assume that such TTM results can be increased by 5% to 10% from the expansion plans of company. So from such, target EPS are as follows.

YEAR	TTM 31/12/06	31/03/07(E)	31/03/07(E)	31/3/08(E)
<b>Growth (%)</b>	-----	<b>5</b>	<b>10</b>	<b>25</b>
<b>SALES</b>	1,364.08	1,432.28	1500.49	1705.10
<b>Operating Profit</b>	188.10	197.51	206.91	235.13
<b>PAT</b>	126.33	132.65	138.96	157.91
<b>EPS (Rs.)</b>	47.67	50.06	52.44	59.59

## Valuation

At the current market price of Rs 1196.85, the company is quoting at the price to earning ratio of 25.11 to its TTM EPS of 47.67. Looking at the performance of the quarter ended 31/12/06, we expect the company to end the year FY07 with EPS of Rs 52.44. For FY08, revenue is likely to grow at least by 25%, which translates

into EPS of Rs 59.59. The stock has potential to enjoy P/E of 26 to 28, which results into target price of as follows:

<b>Expected Market Price at different Combinations of P/E &amp; EPS</b>				
<b>EPS Growth (%)</b>	<b>-</b>	<b>5 (07E)</b>	<b>10 (07E)</b>	<b>25 (08E)</b>
<b>EPS (Rs.) at Different Growth Rates</b>	<b>47.67</b>	<b>50.06</b>	<b>52.44</b>	<b>59.59</b>
<b>P/E (X) Ratio</b>				
<b>24</b>	1144.08	1201.33	1258.53	1430.15
<b>26</b>	<b>1239.42</b>	<b>1301.44</b>	<b>1363.41</b>	<b>1549.33</b>
<b>28</b>	1334.76	1401.55	1468.29	1668.51



## India Cements Ltd.

Industry	Business Group	Mkt. Cap.	BSE Code	NSE Code
Cement	India Cement	5460.77	530005	INDIACEM

India Cements Ltd (ICL) was established in Feb.'46, it is a diversified company with interests in cement, shipping and real estate development. The first cement unit was commissioned in 1949 at Sankarnagar, Tamilnadu. By 1970, the capacity was raised to 9.1 lac TPA. The second cement plant at Sankari, Tamilnadu, was commissioned in 1963, with increased capacity of 6 lac TPA in 1971. The subsidiaries of the company are ICL Securities Ltd, ICL International Ltd, Industrial Chemicals & Monomers Ltd and ICL Financial Services Ltd. In 1990 with ICL's acquisition of Coromandel Cement plant at Cuddapah, installed Capacity rose to 2.6 million TPA.

During 1991-92, the company started shipping activities by time chartering dry bulk-cargo carriers. In 1994 ICL successfully floated a US\$ 50 million GDR issue. In 1995 it announced a 1:1 Bonus.

The company is also engaged in real estate and property development and it also has a wind farm in Coimbatore. In 1996 ICL's green field cement plant at Dalavoi commenced commercial production with an Installed capacity 90,000 TPA. In 1997 India cements acquired Aruna Sugars Finance Ltd that was later renamed as India Cements Capital & Finance Ltd. It also acquired Cement Plant of Visaka Cement Industry, at Tandur, Ranga Reddy district of Andhra Pradesh with Installed capacity 9 lac TPA. The cement division of Raasi Cement (RCL) was vested with the company from Apr.'98 under a scheme of arrangement. Also during the same year the company hived off its shipping division to ICL Shipping (ICLS). It also acquired Cement Corporation of India's Yerraguntla Cement Plant at Andhra Pradesh with an Installed capacity 4 lac TPA. In Oct.'99, ICL Securities, the company wholly owned subsidiary acquired 49.05% of the equity share capital in Sri Vishnu Cement (SVCL), simultaneously; Rassi Cement also acquired 39.5% of the equity capital of SVCL. At present the company along with its subsidiary holds 94.16% of the share capital of SVCL and is now a subsidiary of the company. The company has launched a portal 'homztoday.com' containing A to Z on home making. This is a comprehensive web site focusing on a variety of home needs and providing various categories of user's information ranging from

property purchase to locating any type of service provider to homes. During 2004-05, the unique Waste Heat Recovery System for generation of power from waste gas at Vishnupuram plant was commissioned with generating power of 7.7MW. Currently, the plant locations of the company are at Sankarnagar, Sankari and Dalavoi in Tamilnadu, Chilamakur, Yerraguntla and Vishnupuram in Andhra Pradesh.

#### Shareholding Pattern

Particulars	% Share Holding
Total Foreign	35.68
Total Institutions	22.76
Total Govt Holding	0.00
Total Non Promoter Corporate Holding	5.15
Total Promoters	26.89
Total Public & Others	9.54
<b>Totals</b>	<b>100.00</b>

#### SEGEMENT WISE COMPANY PERFORMANCE

Particulars	31 May 2006	30 June 2005	Growth
Clinker Production	58.76 lacs Ts	53.51 lacs Ts	9.81
Cement Production	72.62 lacs Ts	54.93 lacs Ts	32.20%
<b>Total Sales</b>	<b>74.79 lacs Ts</b>	<b>63.75 lacs Ts</b>	<b>17.32%</b>
Cement Sales	72.92 lacs Ts	54.84 lacs Ts	32.97%
Clinker including exports sales	1.87 lacs Ts	8.91 lacs Ts	

The company was able to outperform the market by fuller capacity utilisation for cement and by strategically withdrawing from clinker exports, which fell in 2005-06 to 1.56 Lac Ts from 8.11 Lac Ts in 2004-05. Cement exports were however increased to 2.10 Lac Ts in 2005-06 as against 0.29 Lac Ts in 2004-05. With the cement prices recovering during the second half of 2005-06, the Gross realisation per TN of cement improved by about 8% over the previous year and this together with substantial increase in volume, contributed to a jump in sales and other income to Rs.1836.69 Crore from Rs.1402.30 crore in 2004-05 - an increase of 31%. Consequently, the income from operations registered a significant increase of 75% to Rs.268.21 Crore from Rs.153.45 Crore in 2004-05 and the operating margins have improved to 14.60% from 10.94% in the previous year.

## **OPPORTUNITIES**

The cement industry appears to have entered a boom phase. With the available cement production being fully absorbed in the market place, given the anticipated annual GDP growth of 7 to 8%, annual demand for cement in the country should continue to grow at 8 to 10%. With the estimated demand for cement by 2011 at 213 Million Tones (NCAER study), substantial capacity addition is called for during the next 5 years. With the firm demand supply scenario and even pockets of scarcity, cement prices have already recovered smartly to satisfactory levels.

## **EXPANSION / MODERNISATION**

Improvement in the financial position of the company, it is proposed to implement a few capital expenditure schemes to increase significantly the clinker and cement output at most of the units, to reduce energy consumption level and optimise other parameters. The proposals include conversion of the Sankari plant from wet to dry process. It is planned that all the capital expenditure proposals will be implemented over the next 18 to 24 months. On such implementation, the overall cement capacity will increase by about 2 million tones besides improvement in physical parameters like consumption of power and fuel. The total outlay on such schemes is estimated at Rs. 345 Crore. These capital proposals will be financed out of the proceeds of Foreign Currency Convertible Bonds (FCCB) referred to earlier in the Report.

The Company has signed a MOU dated 11th May 2006 with the Government of Himachal Pradesh for setting up a cement plant of 2 million tones per annum capacity in Shimla District, Himachal Pradesh. The company under the said MOU has to complete the physical implementation of the project within 5 years and introductory work has commenced for executing this project within 3 to 4 years.

**Annual Result (Rs. In crore)**

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003	Mar 2002	% Chg.
Gross Sales	1829.44	1385.39	1232.9	1026.93	1188.56	32.05
Excise Duty	287.69	223.25	216	175.35	169.45	28.86
<b>Net Sales</b>	<b>1541.75</b>	<b>1162.14</b>	<b>1016.9</b>	<b>851.58</b>	<b>1019.11</b>	<b>32.66</b>
Other Income	16.82	80.31	29.64	6.07	124.68	-79.06
Total Income	1558.57	1242.45	1046.54	857.65	1143.79	25.44
Total Expenditure	1280.79	1025.6	916.08	824.95	858.44	24.88
<b>Operating Profit</b>	<b>277.78</b>	<b>216.85</b>	<b>130.46</b>	<b>32.7</b>	<b>285.35</b>	<b>28.10</b>
Interest	148.93	133.5	161.68	258.54	205.44	11.56
Gross Profit	128.85	83.35	-31.22	-225.84	79.91	54.59
Depreciation	78.87	78.77	81.51	81.39	87.47	0.13
Tax	2.33	0	0	8.2	0	0.00
Deferred Tax	2.34	0	-16.8	-114.06	-6.75	0.00
<b>PAT</b>	<b>45.31</b>	<b>4.58</b>	<b>-95.93</b>	<b>-201.37</b>	<b>-0.81</b>	<b>889.30</b>
Extra-ordinary Items	9.12	63.4	25.66	0	118.89	0.00
Adjusted PAT	36.19	-58.82	-121.59	-201.37	-119.7	-161.53
<b>EPS.</b>	<b>2.38</b>	<b>0.33</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1879.26</b>
Dividend (%)	0.00	0.00	0.00	0.00	0.00	0.00
Equity share	190.77	138.59	138.59	138.59	138.59	37.65

- The sales and other income increased by 31% on account of increase in the total quantum of cement and clinker sold by 17.3% and an increase of Rs.189/Tn in the gross sales realisation of cement.
- The profit after tax was at Rs.45.31 Crore during the year under review as compared to Rs.4.58 Crore in the previous financial year.

**Ratio**

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003
<b>Debt-Equity Ratio</b>	0.88	1.56	1.50	4.25
<b>Current Ratio</b>	3.12	3.29	3.04	2.13
<b>Total Assets</b>	0.56	0.42	0.36	0.47
<b>Debtors</b>	7.27	7.07	7.54	4.69
<b>OPM (%)</b>	<b>18.02</b>	<b>18.66</b>	<b>12.83</b>	<b>3.84</b>
<b>NPM (%)</b>	<b>2.94</b>	<b>0.39</b>	<b>-9.43</b>	<b>-23.65</b>
<b>EPS</b>	<b>2.38</b>	<b>0.33</b>	<b>0.00</b>	<b>0.00</b>
<b>ROCE (%)</b>	8.50	6.65	3.83	1.49
<b>RONW (%)</b>	2.60	0.36	-7.05	-48.09

**Target Price Evaluation**

If we want to forecast the expected sales and EPS of the company, we can do so by adding the last quarter of year 05-06 (Q4 0506), we can get the data for trailing twelve month (TTM). It shows that company will desire to achieve these results,

which was in last quarter of 05-06. Now by adding the result of Q3-07, Q2-07, Q1-07, and Q4-06, we can get expected sales and EPS figures. Now we can assume that such TTM results can be increased by 5% to 10% from the current performance of the company. So from such, target EPS are as follows.

Particulars	Dec 2006	Sep 2006	Jun 2006	Mar 2006	TTM 31/12/06	% Chg Q307-Q207
Type	3Qtr	2Qtr	1Qtr	4Qtr		
Net Sales	472.41	516.35	485.23	422.76	<b>1896.75</b>	-0.09
Other Income	1.71	0.83	5.43	4.72	<b>12.69</b>	1.06
Total Income	474.12	517.18	490.66	427.48	<b>1909.44</b>	-0.08
Total Expenditure	339.36	343.78	319.7	346.39	<b>1349.23</b>	-0.01
Operating Profit	134.76	173.4	170.96	81.09	<b>560.21</b>	-0.22
Interest	34.66	36.42	38.89	31.44	<b>141.41</b>	-0.05
Gross Profit	100.1	136.98	132.07	49.65	<b>418.8</b>	-0.27
Depreciation	19.82	19.26	19.2	19.71	<b>77.99</b>	0.03
Tax	0.5	0.4	0.28	0.57	<b>1.75</b>	0.25
Deferred Tax	0	0	0	2.34	<b>2.34</b>	0.00
Reported Profit After Tax	79.78	117.32	112.59	27.03	<b>336.72</b>	-0.32
Equity Share	22.037	22.037	22.037	19.077	<b>0</b>	0.00
EPS	3.62	5.32	5.11	1.42	<b>15.47</b>	-0.32
<b>TTM EPS</b>	<b>15.47</b>					
<b>CMP</b>	<b>222.1</b>					
<b>Company P/E</b>	<b>14.36</b>					
<b>Industry P/E</b>	<b>17.30</b>					

YEAR	TTM 31/12/06	31/03/07(E)	31/03/07(E)	31/3/08(E)
<b>Growth (%)</b>	-----	<b>5</b>	<b>10</b>	<b>25</b>
<b>SALES</b>	1,896.75	1991.59	2086.43	2370.94
<b>Operating Profit</b>	560.21	588.22	616.23	700.26
<b>PAT</b>	336.72	353.56	370.39	420.90
<b>EPS (Rs.)</b>	15.47	16.24	17.02	19.34

## Valuation

At the current market price of Rs 222.10, the company is quoting at the price to earning ratio of 14.36 to its TTM EPS of 15.47. Looking at the performance of the Q1-07, Q2-07, we expect the company to end the year FY07 with EPS of Rs 16 to 18. For FY08, revenue is likely to grow at least by 25%, which translates into EPS of Rs 19.34. which results into target price of as follows.

<b>Expected Market Price at different Combinations of P/E &amp; EPS</b>				
<b>EPS Growth (%)</b>	<b>--</b>	<b>5 (07E)</b>	<b>10 (07E)</b>	<b>25 (08E)</b>
<b>EPS (Rs.) at Different Growth Rates</b>	<b>15.47</b>	<b>16.24</b>	<b>17.02</b>	<b>19.34</b>
<b>P/E (X) Ratio</b>				
<b>14</b>	216.58	227.41	238.24	270.73
<b>17</b>	<b>262.99</b>	<b>276.14</b>	<b>289.29</b>	<b>328.74</b>
<b>18</b>	278.46	292.38	306.31	348.08

## Madras Cements Ltd.

Industry	Business Group	Mkt. Cap.	BSE Code	NSE Code
Cement	Ramco	4396.94	500260	MADRASCEM

Madras Cements Ltd (MCL), a flagship of the Ramco group, is a major player in the blended cement category in South India and is very popular for its Ramco brands of cements like 'Ramco super steel cement' and 'Ramco super grade cement'. It also operates a ready mix concrete plant (RMC) near Chennai. Between 1980 and 1985, it undertook a modernisation programme and replaced its four cement mills in R N Nagar, Tamilnadu, with a single new combined cement mill, which ensured substantial reduction in energy, and operation costs. In 1986, MCL implemented one more cement plant in Jayanthipuram, Andhra Pradesh. In 1990-91, the company expanded the capacity of its factory by 100000 TPA at an estimated cost of Rs 21.5 cr. In 1992-93, it diversified into power generation by setting up a 4-MW windmill at Muppandal in Kanyakumari, Tamilnadu, which was upgraded by adding eight wind turbines of 250 kW, thereby taking the generation capacity to 6 MW. In 1994-95, 70 additional windmills were installed in Poolavadi, TN. The total Installed capacity of these plants, consisting 123 Wind Energy Generators is 34.44 MW. During 2004-05, The Company commissioned a 36 MW Thermal Power Plant at Alathiyur. The company, for the first time in India, commissioned a surface mine to modernise the mine operations at Ramasamyraja Nagar factory. The company received ISO 9002 certification for its units in Ramasamyraja Nagar, Alathiyur and ready mix concrete unit in Vengaivasal. The company's new project Dry Motor Plant for manufacture of high technology construction products such as render, skimcoat and dryconcrete started production from January 2003 in Sriperumbudur, with the help of M.Tec, Germany who conducted the training assistance to the architects, consultants, builders and contractors to know about the advantages of new product. The company subdivided its value of Equity shares from Rs 100/- to Rs.10/- in the ratio 1:10 with effective from Nov. 06, 2003.

## Share holding Pattern

Particulars	% Share Holding
Total Foreign	2.16
Total Institutions	21.96
Total Govt Holding	3.31
Total Non Promoter Corporate Holding	8.85
Total Promoters	42.46
Total Public & Others	21.27
<b>Totals</b>	<b>100.00</b>

## PRODUCTION & DESPATCHES ('000 tonnes)

<b>CEMENT DIVISION:</b>	<b>2005-2006</b>	<b>2004-2005</b>
Ramasamyraja Nagar (TN) Factory:		
• Clinker produced	805	744
• Cement produced	1187	1105
• Cement Sold	1201	1093
Jayanthipuram (AP) Factory:		
• Clinker produced	1005	641
• Cement produced	1047	743
• Cement Sold	1047	739
• Clinker Sold	257	102
Alathiyur (TN) Factory:		
• Clinker produced	1717	1384
• Cement produced	2316	1815
• Cement Sold	2320	1862
• Clinker Sold	38	46
Mathodu (Karnataka) Factory:		
• Clinker produced	133	120
• Cement produced	161	146
• Cement Sold	160	145

<b>Revenue For other Division (Rs. In Crore)</b>	<b>2005-2006</b>	<b>2004-2005</b>
Ready Mix Concrete Division revenue:	12.83	20.54
Wind Farm Division	13.48	16.14
Dry Motar Division	4.85	1.63



**Export (tones)**

Particulars	2005-2006	2004-2005
Clinker	288777	102416
Cement	228198	82990
Export Turnover (Rs. In crore)	85.20	25.48

**NEW PROJECTS:**

- The Company is setting up a cement project near Ariyalur with a capacity of 2 million TPA. The estimated project cost is Rs.613.00 crore. The plant is slated to be commissioned in the 4th quarter of 2007-2008.
- The Company is establishing additional clinkering facility at Jayanthipuram by installing a 4000 TPD kiln. The clinkering process will be integrated with the existing production facilities, leading to an increase of cement manufacturing capacity by 2 million TPA. The estimated project cost is Rs.439.00 crore. The project is slated to be commissioned in the 2nd quarter of 2007-2008. The project cost would be met from internal accruals and from borrowings. On commissioning, the production capacity of the Company will increase from 6 million TPA to 10 million TPA. The increase in production capacity will help the Company to further consolidate its market share.

## Annual Results

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003	Mar 2002	% Chg.
Gross Sales	1008.45	739.97	694.6	626.14	706.3	36.28
Excise Duty	0	0	0	0	0	0.00
<b>Net Sales</b>	<b>1008.45</b>	<b>739.97</b>	<b>694.6</b>	<b>626.14</b>	<b>706.3</b>	<b>36.28</b>
Other Income	4.9	5.14	5.21	4.22	3.11	-4.67
Total Income	1013.35	745.11	699.81	630.36	709.41	36.00
Total Expenditure	798.54	586.46	532.81	476.85	530.29	36.16
<b>Operating Profit</b>	<b>214.81</b>	<b>158.65</b>	<b>167</b>	<b>153.51</b>	<b>179.12</b>	<b>35.40</b>
Interest	34.35	35.89	49.6	66.17	77.5	-4.29
Gross Profit	180.46	122.76	117.4	87.34	101.62	47.00
Depreciation	65.19	63.34	63.27	64.01	60.96	2.92
Tax	32.75	7.4	4.15	1.85	3.2	342.57
Deferred Tax	3.5	-3.9	16.58	8.52	11.8	-189.74
<b>PAT</b>	<b>79.02</b>	<b>55.92</b>	<b>33.4</b>	<b>12.96</b>	<b>25.66</b>	<b>41.31</b>
Extra-ordinary Items	-0.49	-1.56	-0.07	-0.8	0	-68.59
Adjusted PAT	79.51	57.48	33.47	13.76	25.66	38.33
<b>EPS</b>	<b>65.41</b>	<b>46.29</b>	<b>27.65</b>	<b>10.73</b>	<b>0</b>	<b>41.30</b>
Dividend (%)	150	100	75	60	60	50.00
Equity	12.08	12.08	12.08	12.08	12.08	0.00

- The sale of Cement including self-consumption had registered a high increase from 38.39 lac tones to 47.28 lac tones. This represents a growth of 23.16% as against the Cement Industry's growth rate of 11.4% during the year under review.
- Matching with the increase in production and sale, the total revenue for the year had also increased to Rs.1013 Crore against Rs.745 Crore of the previous year.
- The operating profit before interest, depreciation and tax was higher at Rs.214.81 Crore as against Rs.158.65 Crore of the previous year, showing 35.40% increase.
- The net profit after tax was also higher at Rs.79.02 Crore as against Rs.55.92 Crore of the previous year, showing 41.31% increase. The increase in capacity utilization, higher exports and better realization due to buoyant demand had accounted for the increase in the net profits for the year.

- Madras Cements fixed 5 February 2007 as the record date for the purpose of payment of second interim dividend as 75%.

## Ratio

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003
Debt-Equity Ratio	1.53	2.06	2.10	2.62
Current Ratio	0.77	0.88	0.71	0.77
Total Assets	1.01	0.72	0.77	0.64
Debtors	21.32	16.83	14.01	11.89
OPM (%)	21.30	21.44	24.04	24.52
NPM (%)	7.84	7.56	4.81	2.07
EPS	65.41	46.29	27.65	10.73
ROCE (%)	21.58	15.47	18.41	15.75
RONW (%)	20.10	16.70	11.41	4.81

## Target Price Evaluation

Particulars	Sep 2006	Jun 2006	Mar 2006	Dec 2005	TTM 31/09/06	% Chg Q207-Q107
Type	2Qtr	1Qtr	4Qtr	3Qtr		
Net Sales	407.25	340.89	299.84	242.65	1290.63	19.47
Other Income	1.69	2.9	1.6	1.33	7.52	-41.72
Total Income	408.94	343.79	301.44	243.98	1298.15	18.95
Total Expenditure	248.97	204.52	233.36	201.04	887.89	21.73
Operating Profit	159.97	139.27	68.08	42.94	410.26	14.86
Interest	4.2	4.2	9.07	11.23	28.70	0.00
Gross Profit	155.77	135.07	59.01	31.71	381.56	15.33
Depreciation	18.35	17.39	14.78	17.31	67.83	5.52
Tax	30.8	37.67	13.37	4.72	86.56	-18.24
Deferred Tax	16.55	1.16	-1.7	0.09	16.10	1326.72
Reported Profit After Tax	90.07	78.85	32.56	9.59	211.07	14.23
Equity share	1.208	1.208	1.208	1.208	4.83	0.00
EPS	74.56	65.27	26.95	7.94	174.73	14.23
<b>TTM EPS</b>	<b>174.73</b>					
<b>CMP</b>	<b>3430</b>					
<b>Company P/E</b>	<b>19.63</b>					
<b>Industry P/E</b>	<b>17.30</b>					

- Madras Cement has posted a net profit of Rs 90.07 crore for Q2 September 2006 compared to Rs 18.81 crore in Q2 September 2005.
- Net sales rose to Rs 407.25 crore from Rs 246.09 crore.

By adding the last two-quarter of year 05-06 (Q4 05-06, Q3 05-06) and current year 2 quarters, we can get the data for trailing twelve month (TTM). It shows that company will desire to achieve these results, which will be at the end of FY 06-07. Now by adding the result of Q2-07, Q1-07, Q4-06, and Q3-06, we can get expected sales and EPS figures. Now we can assume that such TTM results can be increased by 5% to 10% from the current performance of the company. So from such, target EPS are as follows.

YEAR	TTM 31/09/06	31/03/07(E)	31/03/07(E)	31/3/08(E)
Growth (%)	-----	5	10	25
SALES	1,290.63	1355.16	1419.69	1613.29
Operating Profit	410.26	430.77	451.29	512.83
PAT	211.07	221.62	232.18	263.84
EPS (Rs.)	174.73	183.46	192.20	218.41

## Valuation

At the current market price of Rs 3430.00, the company is quoting at the price to earning ratio of 19.63 to its TTM EPS of 174.73. Looking at the performance of the quarter ended 31/09/06, we expect the company to end the year FY05 with EPS of Rs 183 to 193. For FY08, revenue is likely to grow at least by 30%, which translates into EPS of Rs 10.67. The stock has potential to enjoy P/E of 17 to 20, which results into target price as follows:

Expected Market Price at different Combinations of P/E & EPS				
EPS Growth (%)	--	5 (07E)	10 (07E)	25 (08E)
EPS (Rs.) at Different Growth Rates	174.73	183.46	192.20	218.41
P/E (X) Ratio				
17	2970.36	3118.87	3267.39	3712.94
20	3494.54	3669.26	3843.99	4368.17
21	3669.26	3852.73	4036.19	4586.58

## Thermax Ltd.

Industry	Business Group	Mkt. Cap.	BSE Code	NSE Code
Engineering	Indian Private	4818.43	500411	THERMAX

In 1980, Wanson (India) Pvt Ltd, manufacturing coil type packaged boilers, was amalgamated with Thermax India Pvt Ltd and Thermo-Dynamics Pvt Ltd. The amalgamated company was renamed Thermax Pvt Ltd. Three companies -- Tulsii Fine Chemicals Pvt Ltd, Kailas Castings Pvt Ltd, and T K Steel Industries were later amalgamated with it and the company is now known as Thermax. Thermax is engaged in the business of providing sustainable solutions in Energy & Environment and company's core business comprise six major areas. They are Boilers & Heaters, Absorption Cooling, Water & Waste Solutions, and Chemicals for Energy & Environment applications, Captive Power & Cogeneration Systems and Air Pollution & Purification. In 1995-96, its COGEN division signed a distributorship agreement with Kawasaki Heavy Industries for packaging Kawasaki's gas turbines up to 6 MW. The company has developed new generation sewage treatment plant that occupies only 10% of the space required by a conventional plant. Pilot plant trials have been completed successfully and this technology will be commercialised soon for municipal sewage treatment. During 1999-2000, Thermax Instrumentation Ltd, a joint venture between Thermax and Fuji Electric of Japan was amicably broken up. It acquired ME Engineering, a UK-based company belonging to the Beel Industrial Boilers Plc (BIB) group. Thermax exited from Thermax Systems and Software by selling it at a valuation of Rs 11 crore in exchange for one lac shares of Global Tele Systems which are to be locked in for a specified period. Thermax has also sold its industrial fans division to a Pune-based company, Universal Fans, for a valuation of Rs 1.25 cr. Thermax Babcock & Wilcox Ltd (TBW) is a joint venture company between Thermax and Babcock & Wilcox International Investments Co, USA (BWII). During 2004-05 the company has acquired the 40% equity stake of Thermax Babcock & Wilcox Ltd, which was held by Babcock & Wilcox International Investments Co, USA. Consequent to this acquisition, TBW has become a wholly owned subsidiary of Thermax. Thermax Energy Performance Services Ltd (TEPS) is a 51:49 joint Venture between the company and EPS Asia Inc. Due to the disputes between the JV Partners, TEPS may be wound up.

During 2001-2002, Thermax Water Technologies a wholly owned subsidiary of the company was amalgamated with Thermax Ltd. The 36 MW power plants for Shree Cement were commenced during 2002-03. The company has decided to amalgamate Thermax Babcock & Wilcox Ltd and Thermax Captial Ltd, its wholly owned subsidiaries with itself with effect from 1st April 2005. The Company has increased its installed capacity of Ion Exchange Resins & Chemicals by 18391 MT during 2004-05 and with this expansion the total installed capacity of Ion Exchange Resins & Chemicals has increased to 33191 MT.

### Share holding Pattern

Particulars	% Share Holding
Total Foreign	4.37
Total Institutions	16.44
Total Govt Holding	0.00
Total Non Promoter Corporate Holding	3.11
Total Promoters	61.98
Total Public & Others	14.10
<b>Totals</b>	<b>100.00</b>

### Energy Segment Analysis

The continuing rise in oil prices has triggered a major fuel shift from liquids to solids, including biomass. This trend is very pronounced in the markets of South East Asia, which has a healthy demand for company's boilers and heaters. In Indian industry, the urgency to be globally competitive has caught on and industry majors in iron and steel, cement, pharma and textiles are going on an 'energy diet' to become fighting fit.

### Subsidiaries

Subsidiary Sales	2005-06	2004-05
Thermax Instrumentation Limited (Cr.)	<b>53.00</b>	
ME Engineering Limited, U.K.(loss on energy system) (GBP M)	<b>7.20</b>	
Thermax Inc., U.S.A. (USD M)	<b>12</b>	<b>8.70</b>
Thermax Europe Ltd., UK. (GBP M)	<b>1.90</b>	<b>8.20</b>
Thermax Energy Performance Services Ltd.		<b>1.80</b>
Thermax Engineering Construction Co. Ltd (Cr.)	<b>71.10</b>	
Thermax Hong Kong Limited, Hong Kong		<b>45.40</b>
Thermax do Brazil Energies e Equipamentos Ltda., Brazil		

## **Companies Divisional Sales Turnover**

### **Process Heat Division**

Year	Net Sales (Cr.)	Growth % YOY	% Exports	Exports Growth %
2001-02	132.9	- 4.90	27.10	11.30
2002-03	140.1	5.40	34.00	32.10
2003-04	177.8	26.90	27.40	2.40
2004-05	230.4	29.60	28.40	34.30
2005-06	288.8	25.30	30.00	33.80

The packaged boiler and heater business earned revenues of Rs. 289 crore, a growth of 26 percent. In the domestic market, textile, pharma, chemical and food processing were the main sectors driving this business and the division maintained a dominant market share.

### **Boiler and Heater Group**

Year	Net Sales (Cr.)	Growth % YOY	% Exports	Exports Growth %
2001-02	146.50	5.80	11.90	136.30
2002-03	167.70	14.50	13.70	31.30
2003-04	242.20	44.40	16.80	78.00
2004-05	348.90	44.10	27.30	133.30
2005-06	463.00	34.20	25.30	23.20

The iron and steel industry continues to drive growth in this business.

### **Absorption Cooling Division**

Year	Net Sales (Cr.)	Growth % YOY	% Exports	Exports Growth %
2001-02	73.20	11.20	38.70	9.00
2002-03	75.60	3.30	44.10	17.60
2003-04	85.80	13.50	36.20	-6.70
2004-05	107.60	25.40	39.90	38.10
2005-06	121.60	13.00	36.90	4.70

Reduction in export in the American markets due to rising oil and gas prices. The chemical and textile sectors were the main growth drivers during the year.

### **Cogen Division**

Year	Net Sales (Cr.)
2001-02	10.80
2002-03	85.60
2003-04	17.00
2004-05	136.90
2005-06	241.50

The outlook for this business remains positive with a healthy enquiry pipeline spurred by the booming all round growth in Indian industry and the Skyrocketing prices of fuel oil.

## Water and Waste Solutions

Year	Net Sales (Cr.)	Growth % YOY
2001-02	45.10	-17.70
2002-03	59.20	31.30
2003-04	50.10	-15.40
2004-05	89.80	79.20
2005-06	104.00	15.60

## Enviro Division

Year	Net Sales (Cr.)	Growth % YOY
2001-02	33.40	-6.70
2002-03	30.40	-9.00
2003-04	58.00	90.80
2004-05	118.00	103.40
2005-06	146.20	28.10

The healthy trend of investment in cement, power and steel is there

## Chemical Division

Year	Net Sales (Cr.)	Growth % YOY	% Exports	Exports Growth %
2001-02	87.10	12.70	36.50	-11.80
2002-03	78.00	-10.40	36.10	-11.40
2003-04	77.60	-0.10	37.70	4.40
2004-05	88.00	13.40	42.50	27.70
2005-06	105.50	19.90	44.60	27.00

## Risk

### Competition risk

- Falling tariffs are exposing the industry to cheaper imports. The company has seen the entry of Chinese competition in larger range of boilers and captive power plants. Growing size of orders in the Indian market has attracted large international players and this trend is likely to gather momentum.

### Energy price fluctuations

- The company recognizes that fluctuations in fuel and energy prices change the viability of projects and also drives the use of alternate energy / fuel sources. In a significant move the company has taken steps to acquire capability in the large utility range of heat recovery steam generators for gas based power plants. This will create new opportunities for the company as gas becomes a major fuel in domestic power generation.



### **Exchange fluctuations and interest rate risks**

- The company is a net exporter. Exports are largely denominated in US dollars and hence are subject to the risk of exchange fluctuations.

### **Expansion Plan**

- Thermax is substantially expanding its manufacturing capacity for boilers & heaters with an investing of Rs 175 crore in a facility at Savli in Gujarat. The plant is expected to be in operation in the next 12 months.
- GEI Hamon Industries has received orders worth Rs 29.21 crore for air cooled heat exchangers and air cooled steam condensers, the details of orders are as follows: A.) Thermax India order value is Rs 13.18 crore. B). Punj Lloyd order value is Rs 11.75 crore.
- Thermax is setting up a plant in China for manufacturing absorption chillers with an investment of \$ 8 million. The company will set up Thermax (Zhejiang) Cooling & Heating Engineering in China. This subsidiary will cater to the requirements of an absorption chiller market in China and other export markets.
- Thermax said on Friday that it received, along with its subsidiary, two orders worth Rs 383 crore for two captive power projects. With the latest orders, Thermax's current fiscal order booking exceeds 250 MW of captive power plants valued at about Rs 1,000 crore. Thermax is a leading player in energy and environment management. It is a major supplier of boilers, environmental engineering systems, and co-generation equipment to the sugar sector.
- Thermax has announced that the co-gen Division has received an order valued at about Rs 88 crore from a cement company for supply of 1 \* 25 MW, Coal / Petcoke / Lignite based captive power project.
- Thermax has announced that the Co-gen division, has received an order valued at about Rs 164 crore for supply of 50 MW, coal based captive power plant.

## Annual Result (Rs. in crore)

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003	Mar 2002	% Chg.
Gross Sales	1483.4	915.88	563.88	513.6	465.57	61.96
Excise Duty	0	0	0	0	0	0.00
<b>Net Sales</b>	<b>1483.4</b>	<b>915.88</b>	<b>563.88</b>	<b>513.6</b>	<b>465.57</b>	<b>61.96</b>
Other Income	14.6	25.28	39.93	38.93	36	-42.25
Total Income	1498	941.16	603.81	552.53	501.57	59.17
Total Expenditure	1289.32	848.29	522.18	478.69	455.41	51.99
<b>Operating Profit</b>	<b>208.68</b>	<b>92.87</b>	<b>81.63</b>	<b>73.84</b>	<b>46.16</b>	<b>124.70</b>
Interest	0.94	0.65	0.4	0.65	3.04	44.62
Gross Profit	207.74	92.22	81.23	73.19	43.12	125.27
Depreciation	15.21	9.2	8.78	9.69	12.36	65.33
Tax	66.92	27.3	20	18.5	11.5	145.13
Deferred Tax	2.36	0.43	-1.64	-3.24	-4.76	448.84
<b>PAT</b>	<b>123.25</b>	<b>55.29</b>	<b>54.09</b>	<b>48.24</b>	<b>24.02</b>	<b>122.92</b>
Extra-ordinary Items	-3.85	-6	-4.2	-4.11	-3.07	-35.83
Adjusted PAT	127.1	61.29	58.29	52.35	27.09	107.37
<b>EPS</b>	<b>10.34</b>	<b>23.20</b>	<b>22.70</b>	<b>20.24</b>	<b>10.32</b>	<b>122.92</b>
Dividend (%)	170	120	120	120	0	41.67
Equity	23.83 (Face Value = 2)	23.83	23.83	23.83	23.83	0.00

- PAT is higher at Rs. 123.3 crore from Rs. 55.3 crore in the previous year.
- EPS moved up significantly to Rs. 9.69 compared to Rs. 4.37 in 2004-05.

## Ratio

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003
<b>Debt-Equity Ratio</b>	0.00	0.00	0.00	0.00
<b>Current Ratio</b>	0.92	0.99	1.08	1.14
<b>Total Assets</b>	3.10	2.23	1.44	1.39
<b>Debtors</b>	7.43	6.30	5.55	5.35
<b>OPM (%)</b>	14.07	10.14	14.48	14.38
<b>NPM (%)</b>	8.31	6.04	9.59	9.39
<b>EPS</b>	10.34	23.20	22.70	20.24
<b>ROCE (%)</b>	43.60	22.65	20.90	19.93
<b>RONW (%)</b>	25.75	13.48	13.85	13.02

## Target Price Evaluation

Particulars	Sep 2006	Jun 2006	Mar 2006	Dec 2005	TTM 31/09/06	% Chg Q207-Q107
Type	2Qtr	1Qtr	4Qtr	3Qtr		
Net Sales	482.29	318.59	468.99	356.55	<b>1626.42</b>	51.38
Other Income	8.76	10.58	11.07	5.82	<b>36.23</b>	-17.20
Total Income	491.05	329.17	480.06	362.37	<b>1662.65</b>	49.18
Total Expenditure	429.62	284.39	406.01	313.54	<b>1433.56</b>	51.07
Operating Profit	61.43	44.78	74.05	48.83	<b>229.09</b>	37.18
Interest	0.24	0.01	0.37	0.27	<b>0.89</b>	2300.00
Gross Profit	61.19	44.77	73.68	48.56	<b>228.20</b>	36.68
Depreciation	4.99	3.76	5.18	3.44	<b>17.37</b>	32.71
Tax	22.77	13.45	23.85	16.03	<b>76.10</b>	69.29
Deferred Tax	-1.65	0.02	2.68	-0.37	<b>0.68</b>	-8350.00
Reported Profit After Tax	35.08	27.54	41.97	29.46	<b>134.05</b>	27.38
Equity Share	11.915	11.915	11.915	11.915	<b>0.00</b>	0.00
EPS	2.94	2.31	3.52	2.47	<b>11.25</b>	27.38
<b>TTM EPS</b>	<b>11.25</b>	(Face value Rs. 2 / Equity Share)				
<b>CMP</b>	<b>405</b>					
<b>Company P/E</b>	<b>36.00</b>					
<b>Industry P/E</b>	<b>32.20</b>					

- Thermax has reported 27.38% growth in net profit for Q2 September 2006 to Rs 35.08 crore (Rs 27.54 crore).
- Total income has risen 49.18% to Rs 491.05 crore (Rs 329.17 crore).
- The company has a robust order-book position with an order backlog of Rs 2,973 crore on a consolidated basis as on 30 September 2006. This was 142% higher from that of last year. The company said it continues to get major orders from iron & steel, cement, sugar and refining sectors.

By adding the last two-quarter of year 05-06 (Q4 05-06, Q3 05-06) and current year 2 quarters, we can get the data for trailing twelve month (TTM). It shows that company will desire to achieve these results, which will be at the end of FY 06-07. Now by adding the result of Q2-07, Q1-07, Q4-06, and Q3-06, we can get expected sales and EPS figures. Now we can assume that such TTM results can be increased by 5% to 10% from the current performance of the company. So from such, target EPS are as follows.

YEAR	TTM 31/09/06	31/03/07(E)	31/03/07(E)	31/3/08(E)
Growth (%)	-----	5	10	25
SALES	1,626.42	1707.74	1789.06	2033.03
Operating Profit	229.09	240.54	252.00	286.36
PAT	134.05	140.75	147.46	167.56
EPS (Rs.)	11.25	11.81	12.38	14.06

## Valuation

At the current market price of Rs 405.00, the company is quoting at the price to earning ratio of 36 to its TTM EPS of 7.10. Looking at the performance of the quarter ended 31/09/06, we expect the company to end the year FY07 with EPS of Rs 11.81 to 12.38 Rs. For FY08, revenue is likely to grow at least by 25%, which converts into EPS of Rs 14.06. The stock has potential to enjoy P/E of 32 to 38, which results into target price as follows:

Expected Market Price at different Combinations of P/E & EPS				
EPS Growth (%)	--	5 (07E)	10 (07E)	25 (08E)
EPS (Rs.) at Different Growth Rates	11.25	11.81	12.38	14.06
P/E (X) Ratio				
32	360.02	378.02	396.02	450.02
36	405.02	425.27	445.52	506.27
38	427.52	448.90	470.27	534.40

## **Titan Industries Ltd.**

<b>Industry</b>	<b>Business Group</b>	<b>Mkt. Cap.</b>	<b>BSE Code</b>	<b>NSE Code</b>
Miscellaneous.	Tata	3962.47	500114	TITAN

Titan Industries (TIL) [Formerly Titan Watches], promoted by Tamilnadu Industrial Development Corp (TIDCO) and the Tata Group is the leading manufacturer of Watches and branded Jewellery. TIL incorporated in 1984 has set up an integrated watch manufacturing facility at Hosur in Tamilnadu in 1987 with initial technical know-how from Europe and Japan. In 1994 a Jewellery plant was set up in the same compels with an investment of Rs.400 million. The company starts manufacturing watches for several prestigious international brands in 1997. The company has three operating divisions namely the Time Products Division (Watches and Precision Engineering), the Jewellery Division (Tanishq) and the International Business Division which was formed by different SBUs for different product groups. The company which has honed the precision engineering expertise over the years has leveraged its expertise in this area and start supplying dashboard instrumentation components and assemblies to global automotive majors, as also certain critical components for aerospace industries. The Subsidiaries of TIL are Titan Time Products Ltd (TTPL), Titan International Holdings NV, Titan Brand Holdings NV and Titan Watch Co Ltd. During 2004-05 the TTPL, a joint venture company of TIL and Economic Development Corporation of Goa, Daman & Diu (EDC), became a wholly owned subsidiary of TIL by the disinvestment of TTPL stake by EDC and a share buy-back by TTPL. TIL's has set up Titan International Marketing, an associate, in the UK. It also has a wholly owned subsidiary, Titan International Holdings, in the Netherlands. Watch Business Titan Industries one of the leading global watch manufacturer, markets its watches under 'Titan', 'Sonata' 'Fasttrack'and 'Dash' brand names. TIL markets its clocks under the brand name of 'Titan Synchronoy'. TIL's exclusive up market retail chain, 'The World of Titan' has 172 stores in 101 locations. The company's watches are presently sold in about 40 countries of the world through marketing subsidiaries based in London, Dubai and Singapore. Titan Industries also makes watches for international labels. Jewellery Titan Industries entered the precious jewellery segment in 1995 under the brand name 'Tanishq' and 'Titan'. It is India's only fine jewellery brand with a national presence. Tanishq jewellery is sold

exclusively through a company controlled retail chain, which now has 70 stores spread across 54 cities in the country. Tanishq jewellery is also exported to Europe, the USA, and the Middle East. The company has increased the installed capacity of watches by 1 Million pieces during 2004-05 and with this expansion the total installed capacity of watches has increased to 9 Million pieces. During 2004-05 the company has set up a new watch assembly unit been established at Baddi Himachal Pradesh with an assembly capacity of 2 Million watches per annum. During 2004-05 the company has launched two brands- Fastrack sunglasses and Tommy Hilfiger Watches. The company has entered into the fragrance business through launch of Evolve and these are available in UAE, OMAN and Bahrain.

### Share Holding Pattern

Particulars	% Share Holding
Total Foreign	13.81
Total Institutions	4.40
Total Govt Holding	0.00
Total Non Promoter Corporate Holding	3.90
Total Promoters	53.06
Total Public & Others	24.84
<b>Totals</b>	<b>100.00</b>

### World Watch Market

#### Time products

As estimated by the Japanese Watch Industry, which accounts for almost 60% of the world's total watch production by volume. Japanese watch production (complete watches plus movements) decreased by about 2% in volume to 724 million units and 5% in value terms, when compared to the previous year. The pattern of the world watch production scenario has moved as follows:

World Watch Production (Million Units)

Particulars	2003	2004	2005
Mechanical Quartz	17	18	20
Digital Quartz	250	247	200
Analog Quartz	1028	1080	1030

## **GOVERNMENT POLICY**

- It is a matter of concern that more than 50% of the Watch Market continues to be serviced by the unorganised sector which is rampant with smuggled and counterfeit watches. The existing high levels of Excise duty together with state level taxes are resulting in the growth of the unorganised sector, posing a threat to the entire Industry.
- The existing regulation for the export of jewellery allows re-importation back into the country within a maximum period of 180 days from the date of export.
- While company exports to over 30 countries as of now, it would like to include our neighbour Pakistan in that list because the customer potential appears to be very high. Currently however, watches (except the ones that are made with precious metal / stones) are not permitted to be imported from India.

## **BRAND TITAN**

### **Retailing:**

The year 2005-06 was a year of enhanced focus on Retailing and the premier retail chain, the World of Titan, grew to 180 stores across 106 cities with its turnover growing by 25 % in value over 2004-05. The arrival of the mall phenomenon is transforming the retailing landscape in India. Business Development within Retailing was given force and dedicated resources were added.

### **Customer Service:**

The Service network is the largest in the watch industry in India. The current network of 648 service centres in 316 towns covers 86% of the watch sales population, providing service access to more than 3 million consumers. During the year 2005-06, the network has been further strengthened by adding 55 new service centres to provide better and faster service to the increasing Titan, Sonata and Fastrack watch population in the market. Over 80 % of the watches received for servicing are repaired and returned to customers within 30 minutes, which is a benchmark in the industry.

**Sonata:**

Sonata within 8 years of its launch has grown to become simply, India's largest selling watch brand. The brand operates in the mass-market segment and has a collection of more than 600 models, ranging from Rs.395 to Rs.1295.

The financial year ended on a high note, with the signing up of ace Indian cricketer Mahendra Singh Dhoni, who will be Sonata's brand ambassador for the next 2 years.

The brand during the year also saw the launch of an ambitious pilot called 'Project Swades', addressing the enormous task of converting non-watch owners into watch users.

**Accessories & Licensing:**

Besides recording 100% growth in its Sunglasses business under the Fastrack brand and making its licensed watch brand Tommy Hilfiger, amongst the top three fashion brands in terms of sales volumes.

The year saw a number of new initiatives to re-launch Fastrack watches including a new identity and logo, innovative products affordably priced between Rs. 500-2000 and a much talked about advertising campaign that sharply positioned the brand as a desirable youth brand.

The coming financial year will also see the launch of Sunglasses under the Titan brand name. This will be the first time that the Company will extend the Titan brand into a product category beyond watches.

**Precision Engineering**

The Precision Engineering Division has progressed with the help of the Tata Strategic Management Group. The division has also qualified to be one of the few suppliers in India to have earned the coveted Q1 certification from Ford and has earned the preferred supplier status from its key.

**Watch Manufacturing**

The Company's new watch Assembly Unit II was established at Dehradun, Uttranchal. The new facility with an assembly capacity of 5 million watches per annum was specially made during October 2005. The unit is also availing the benefits of exemption in Excise Duty, as announced under the new industrial policy for the states of Uttranchal and Himachal Pradesh.



## **Jewellery**

Jewellery is a very high involvement category and perhaps the only one where the seller is presented the title of 'family' jeweler.

Another driver of the category is that it is culture specific, especially with respect to weddings. Weddings are the key drivers of commerce in this category making up for approximately 70% sales.

Being a national jeweller, over 6,000 new designs are introduced in a year to cater to the must-have jewellery, innovations in traditional jewellery and fashionable diamond jewellery.

Tanishq karigar parks, housing over 300 craftsmen grew to 1400 kgs. Production this year, growing 40% over last year. These karigars are located in Hosur. For diamond jewellery, the manufacturing team achieved 80% in-house productivity and initiated programs for skill and technology enhancement across levels.

The Jewellery Division's turnover grew at 48% over last year making it the biggest contributor in the Company's portfolio. 14 new stores were added this year and Tanishq is now present through 83 exclusive stores in 61 cities. The Division has earned an EBIT of Rs 46.37 crore, a growth of 81% over last year's EBIT. This growth was achieved, operating under the constraint of selective Excise Duty.

### **Segment wise sales figure (Rs. In crore)**

<b>Particulars</b>	<b>2005-06</b>	<b>Growth %</b>
Watch	654.83	14.80
Jewellery	791.31	48.00
Accessories and Precision Engineering components	37.01	17.80

### **Business in International market:**

TIME which looks after the sales and marketing of our products in Middle East, Africa and the CIS countries, achieved a growth of 17% in sales volume of Titan watches.

With the introduction of exclusive international collections to grab share from competition and the opening of Titan showrooms across the Middle East, Titan was able to position itself as the number one brand in its category both in Oman and Bahrain and be amongst the top players in other core markets.

TAPL that looks after sales & marketing of our products in the SAARC and ASEAN countries achieved a growth of 9% in sales volume of Titan watches.

With an exclusive product offering to suit the tastes of the local consumers in overseas markets, backed by effective marketing strategies the Tanishq jewellery business grew 82% over 2004-05. The Company is also exploring business opportunities in South America for both watches and jewellery.

The Company achieved an export turnover of Rs.88 cores during the year.

<b>Associates Company</b>	<b>Sales</b>	<b>Profit</b>
Titan International (Middle East) FZE (TIME)	US \$ 12.67	US \$ 0.35
Titan Watches & Jewellery International (Asia Pacific) Pvt. Ltd.(TAPL)	SGD 10.15 M	SGD 0.05 M
Titan International Marketing Ltd. (TIML) in London		Loss GBP 0.36 M

## **Investment**

Investment in brand building and advertising, and these outlays crossed Rs. 101 crore in 2005-06, up from Rs. 77 crore the year before. All the brands of the Company are doing exceedingly well. February 2006 saw the introduction Of the high-end Swiss brand XYLYS.

## **SOME RISKS AND CONCERNS**

- In the watch industry, market saturation for the product category is a risk in the long term, which is being addressed through brand extensions to other product categories such as sunglasses and other synergistic personal wear/ accessories.
- The grey market continues to be threat for gaining market share in watch segment.
- Possible technological obsolescence in the product category is a risk to reckon with, which is being dealt with by the Company by attempting to enrich watches functionally by adding more features.
- The gold price volatility continues to be a risk factor as the volatility has increased in the recent past due to international demand/supply being affected by different factors including the weakening/hardening of global currencies, interest rates and gold hoarding, as an investment option.

- The competition risk exacerbated by a geo political risk in the Middle East and other politically sensitive markets could be a potential threat in the international watch segment.

### Annual Result (Rs. in crore)

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003	Mar 2002	% Chg.
Gross Sales	1481.37	1134.66	958.52	797.9	724.78	30.56
Excise Duty	41.19	37.94	63.64	61.96	58.84	0.00
<b>Net Sales</b>	<b>1440.18</b>	<b>1096.72</b>	<b>894.88</b>	<b>735.94</b>	<b>665.94</b>	<b>31.32</b>
Other Income	2.43	2.73	2.09	10.4	2.24	-10.99
Total Income	1442.61	1099.45	896.97	746.34	668.18	31.21
Total Expenditure	1311.23	1018.96	823.85	674.07	580.48	28.68
<b>Operating Profit</b>	<b>131.38</b>	<b>80.49</b>	<b>73.12</b>	<b>72.27</b>	<b>87.7</b>	<b>63.23</b>
Interest	24.84	30.92	37.62	41.35	46.26	-19.66
Gross Profit	106.54	49.57	35.5	30.92	41.44	114.93
Depreciation	19.66	19.61	21.47	21.14	23.28	0.25
Tax	18.83	10.83	9.29	6.56	6.12	73.87
Deferred Tax	-5.57	-5.82	-6.44	-2.99	-1.05	-4.30
<b>PAT</b>	<b>73.62</b>	<b>24.95</b>	<b>11.18</b>	<b>6.21</b>	<b>13.09</b>	<b>195.07</b>
Extra-ordinary Items	-20.45	0	-15.71	-8.62	-0.27	0.00
Adjusted PAT	94.07	24.95	26.89	14.83	13.36	277.03
<b>EPS</b>	<b>17.41</b>	<b>5.90</b>	<b>2.64</b>	<b>1.47</b>	<b>2.2</b>	<b>195.07</b>
Dividend (%)	30	20	10	10	15	50.00
Equity	42.28	42.28	42.28	42.28	42.28	0.00

- Both the Time Products Division and the Jewellery Division did well, enabling the Company to achieve a sales turnover of Rs. 1481.37 crore, up by 30% from Rs. 1134.66 cores in 2004-05.
- PAT grew almost three times from Rs. 24.95 crore in the previous year to Rs. 73.62 cores.

### Ratio

Particulars	Mar 2006	Mar 2005	Mar 2004	Mar 2003
<b>Debt-Equity Ratio</b>	1.15	1.80	2.46	2.87
<b>Current Ratio</b>	1.67	1.89	2.64	2.65
<b>Total Assets</b>	2.96	2.29	1.68	1.27
<b>Debtors</b>	17.23	9.74	5.35	3.73
<b>OPM (%)</b>	<b>9.12</b>	<b>7.34</b>	<b>8.17</b>	<b>9.82</b>
<b>NPM (%)</b>	<b>5.11</b>	<b>2.27</b>	<b>1.25</b>	<b>0.84</b>
<b>EPS</b>	<b>17.41</b>	<b>5.90</b>	<b>2.64</b>	<b>1.47</b>
<b>ROCE (%)</b>	26.25	16.25	12.78	11.48
<b>RONW (%)</b>	31.65	14.08	6.77	3.82

- Despite the growth of 30% in the turnover, the Company was able to reduce borrowings once again from Rs. 318 crore to Rs. 268 cores. This

has enabled the Company to improve its debt: equity ratio to 1.15 as compared to 1.80 in the previous year.

### Target Price Evaluation

If we want to forecast the expected sales and EPS of the company, we can do so by adding the last quarter of year 05-06 (Q4 0506), we can get the data for trailing twelve month (TTM). It shows that company will desire to achieve these results, which was in last quarter of 05-06. Now by adding the result of Q3-07, Q2-07, Q1-07, and Q4-06, we can get expected sales and EPS figures. Now we can assume that such TTM results can be increased by 10% to 20% from the current performance of the company. So from such, target EPS are as follows.

Particulars	Dec 2006	Sep 2006	Jun 2006	Mar 2006	TTM 31/12/06	% Chg Q307-Q207
Type	3Qtr	2Qtr	1Qtr	4Qtr		
Net Sales	529.14	523.53	441.01	423.06	<b>1916.74</b>	0.01
Other Income	0.87	0.53	1.41	1.05	<b>3.86</b>	0.64
Total Income	530.01	524.06	442.42	424.11	<b>1920.6</b>	0.01
Total Expenditure	472.96	472.06	427.37	374.09	<b>1746.48</b>	0.00
Operating Profit	57.05	52	15.05	50.02	<b>174.12</b>	0.10
Interest	4.65	4.31	4.89	5.79	<b>19.64</b>	0.08
Gross Profit	52.4	47.69	10.16	44.23	<b>154.48</b>	0.10
Depreciation	6.99	5.51	4.9	5.15	<b>22.55</b>	0.27
Tax	18.22	8.95	1.84	1.54	<b>30.55</b>	1.04
Deferred Tax	-0.35	1.05	-0.67	0.33	<b>0.36</b>	0.00
Reported Profit After Tax	27.54	32.18	4.09	37.21	<b>101.02</b>	-0.14
Equity Share	4.228	4.228	4.228	4.228	<b>0</b>	0.00
EPS	6.51	7.61	0.97	8.80	<b>23.89</b>	-0.14
<b>TTM EPS</b>	<b>23.89</b>					
<b>CMP</b>	<b>938</b>					
<b>Company P/E</b>	<b>39.26</b>					
<b>Industry P/E</b>	<b>16.40</b>					

YEAR	TTM 31/12/06	31/03/07(E)	31/03/07(E)	31/3/08(E)
Growth (%)	-----	<b>10</b>	<b>20</b>	<b>30</b>
<b>SALES</b>	1,916.74	2108.41	2300.09	2491.76
<b>Operating Profit</b>	174.12	191.53	208.94	226.36
<b>PAT</b>	101.02	111.12	121.22	131.33
<b>EPS (Rs.)</b>	23.89	26.28	28.67	31.06

## Valuation

At the CMP of Rs 938, the company is quoting at the price to earning ratio of 39.26 to its TTM EPS of 23.89. Looking at the performance of the quarter ended 31/12/06, we expect the company to end the year FY07 with EPS of Rs 26 to 29. For FY08, revenue is likely to grow at least by 25%, which translates into EPS of Rs 31.06. The stock has potential to enjoy P/E of 39 to 41, which results into target price as follows.

<b>Expected Market Price at different Combinations of P/E &amp; EPS</b>				
<b>EPS Growth (%)</b>	<b>--</b>	<b>10 (07E)</b>	<b>20 (07E)</b>	<b>30 (08E)</b>
<b>EPS (Rs.) at Different Growth Rates</b>	<b>23.89</b>	<b>26.28</b>	<b>28.67</b>	<b>31.06</b>
<b>P/E (X) Ratio</b>				
<b>16</b>	382.29	420.52	458.75	496.98
<b>39</b>	<b>931.83</b>	<b>1025.01</b>	<b>1118.20</b>	<b>1211.38</b>
<b>41</b>	979.62	1077.58	1175.54	1273.50

## Voltas Ltd

Industry	Business Group	Mkt. Cap.	BSE Code	NSE Code
Diversified- Mega	Tata	3701.12	500575	VOLTAS

Promoted in 1954 by Tata Sons and Volkart Brothers, a Swiss firm operating in India since 1851. Voltas is India's premier engineering company of the Rs. 400 billion Tata Group, one of India's largest and best-known conglomerates. Voltas has established a strong leadership presence as India's premier air-conditioning company and as a provider of engineering and back-up services. The company's strengths lie in design and manufacture of industrial equipment, management and execution of electro-mechanical projects, sourcing, installation and servicing of technology based systems and representation of global technology leaders, serving diverse industrial sectors and application. Its products include Room Airconditioner and Refrigeration Equipment, Water Coolers, Forklift Trucks, Cranes, Pumps and Modular Office Furniture Systems. During 2004, the company made alliance with Al Hashar Group, a leading business house in the Middle East, for the distribution of Cooling Appliances of Voltas in Oman. During 2005-2006, the Company set up a new Plant at Pantnagar in Uttaranchal for manufacture of some of the more profitable commercial refrigeration products.

Voltas' continues to be in a sweet spot across various business segments. Its unitary cooling division is well placed as is slated to report a 40% plus growth in the current quarter. The company is number two in terms of market share in Household AC market and is ramping up its distribution network to increase its market shares to 20% from 16%.

The Middle East market for Electro-mechanical and plumbing projects continues to look good. While the construction activity is currently focused in and around Dubai, there remains substantial scope for construction spending in Abu Dhabi and Qatar. The company has recently won a Rs. 5.0 bn order for MEP project from Bahrain. This order would be executed over the next two years.

The domestic market for AC products continues to witness traction fuelled by the IT and retail segments. The order backlog has also increased substantially to Rs. 6.0 bn and order inflows have grown 56% in FY06. The company also sees substantial opportunity arising from the airport modernization and construction sector. It is already executing air-conditioning project for Hyderabad Airport.

In the projects business, past experience with a particular customer can help in getting new projects. In this regard, the company stands a good chance of winning the Delhi Airport project as the main project developer in Hyderabad and Delhi is the same (GMR group).

The company has appointed the Boston consulting Group with the objective of advising the company on how to scale up its business from the current levels and business portfolio restructuring.

### Shareholding Pattern

<b>Particulars</b>	<b>%Share Holding</b>
Total Foreign	28.11
Total Institutions	22.1
Total Govt Holding	0
Total Non Promoter Corporate Holding	3.05
Total Promoters	27.32
Total Public & Others	19.42
<b>Totals</b>	<b>100.00</b>

## SUBSIDIARIES AND JOINT VENTURES

The business segments of the Company are:

Revenues 2005-06	Rs. In Cr.
<b>Electro-mechanical Projects and Services (overall Growth 20%)</b> <ul style="list-style-type: none"> <li>• Central Air conditioning system (TCS &amp; airport projects) (Growth 52%)</li> <li>• Refrigeration system</li> <li>• Ventilation, heating</li> </ul>	1129
<b>Engineering Products and Services</b> <ul style="list-style-type: none"> <li>• Mining Equipment</li> <li>• Construction Equipment</li> <li>• Textile spinning Machinery</li> <li>• Material Handling Business (Growth 46%)</li> </ul>	253
<b>Unitary Cooling Products for Comfort and Commercial Use (overall Growth 43%)</b> <ul style="list-style-type: none"> <li>• Split ACs (Household sector- growth -73%)</li> <li>• Water cooler and dispensers (Growth - 45%)                             <ul style="list-style-type: none"> <li>a) Water cooler (Growth - 30%)</li> <li>b) Water Dispensers (Growth - 57%)</li> </ul> </li> <li>• Commercial Refrigeration (Growth - 25%)</li> </ul>	472
<b>Others</b> <ul style="list-style-type: none"> <li>• Chemical Trading Activity</li> </ul>	50

The sales performance of the Company's room air conditioner business was as under:

1. WRAC: Window Room Air Conditioner
2. SAC: Split Air Conditioner

	Industry Sales			Company Sales			Company Share	
	(No.)		%	(No.)		%	%	
	2004-05	2005-06	Growth	2004-05	2005-06	Growth	2004-05	2005-06
WRAC	757000	885000	16.9	80000	1004400	25.5	10.6	11.3
SAC	238000	390000	63.8	46700	80750	72.9	19.6	20.7
<b>Total</b>	<b>995000</b>	<b>1275000</b>	<b>28.1</b>	<b>126700</b>	<b>181190</b>	<b>43</b>	<b>12.7</b>	<b>14.2</b>

Source: Company estimates



## **OPPORTUNITIES AND OUTLOOK**

### **A) Electro-Mechanical Projects And Services**

- a. HVAC demand will also grow as a result of the continued high growth rate in the service sector. Additionally, HVAC growth will be increased by the Government's policies in liberalizing FDI in retail, SEZs, steel, power, modernization and setting up of new airports and regional hubs and other infrastructure sectors, could help bring the electro-mechanical concept into India.
- b. The West Asian region, especially the Gulf (UAE - Dubai and Abu Dhabi), is in the midst of experiencing an economic boom and there is major and extraordinary activity in construction.
- c. Many new international airports are coming up in the region, along with massive plans for upgradation, extension and expansion for the existing ones.
- d. Even the infrastructure for Power and Water is undergoing huge upgradation and capacity increase.
- e. The Company is expecting a share of business arising out of investment in entertainment and leisure-related projects.

### **B) Engineering Products And Services**

- a. The growing demand for textile spun yarn, for both export and indigenous consumption,
- b. The Government's ongoing thrust to expand the textile industry from \$37 billion to \$85 billion by 2010, as well as to modernise its technology, represent promising opportunities for Textile Machinery business.
- c. Growing requirements in cargo/container handling also offer attractive prospects, towards which the Company has plans to increase capacity for manufacture of forklifts and increase its presence in other materials handling areas such as equipment and automated systems.

### **C) Unitary Cooling Products For Comfort And Commercial Use**

- a. Commercial refrigeration products have considerable long-term potential, stimulated by growth in organized retail, changing food habits and the service industry boom.

## **THREATS**

### **A) Electro-Mechanical Projects And Services**

- a. India is one of the fastest growing economies and consequently, most of the international players are focusing on the business opportunities available in India. Entry of more international players, as well as by local players strengthening their operations will cause directly to the company.
- b. Newer competitors from South East Asia. It is somewhat paradoxical that while the market size is so large, these competitors tend to offer unrealistically low prices to gain market access and thereby disturb the optimum price regime.

### **B) Engineering Products And Services**

- a. Growth of certain sectors like iron ore mining are dependant on the whole economic outlook and could be adversely affected in case there is a slow down of output in other countries, particularly, China.

## **RISK AND CONCERNS**

### **Commodity Prices:**

- The increase in commodity prices, specifically metal and crude oil, which started in the previous year, continued their upward spiral after a brief pause. Due to continued increase in their demand, the prices are likely to rise further.
- The Indian economy is integrated with the world economy to a very large extent and therefore vulnerable to the direct impact of such a slowdown; such an impact could adversely affect the Company's performance as well. The increase in input costs could also put some pressure on the Company's margins.

### **Interest Rates:**

Due to inflationary pressures arising from crude oil and metal prices, interest rates have been consolidating over the last couple of years. In view of the Company's good liquidity position, there is unlikely to be a significant direct impact on its

working arising from this. However, there could be some impact caused by interest rates on the overall performance.

#### **Foreign Exchange Rates:**

- The US Dollar continues to be under pressure due to the macro-economic factors affecting the US economy, against the Euro and other currencies.
- The Indian Rupee was volatile during the year 2005-06. Towards the end of the year, there was an underlying trend of Rupee strength vis-à-vis the US Dollar. If this trend continues, there could be some savings in cost of imported raw material used in India.
- There could also be some loss on conversion of the revenues and assets in the Middle East into Indian Rupees, since most currencies in that region move in tandem with the US Dollar.

#### **Reason for Growth Prospects**

- The Voltas-Besseling alliance has tremendous scope when one considers the scale and size of the storage solutions market in India, which is as large as Rs 5,000 crore.
- The company plans on targeting a sizeable chunk of this market and has bagged several projects including Adani project, International Flower Auction Sector in Bangalore, Abhirami in Chennai, and Jaya Cold Storage in Tamil Nadu.
- Voltas, the Rs 2,022 crore air-conditioning and engineering services company, of the Tata group, is betting big on water treatment as a future growth driver.
- The company is setting up three plants in Himachal Pradesh for Rs 50 crore.
- The company has shut its Hyderabad unit, whose production line will be shifted to Pantnagar. Its voluntary retirement scheme bill for the year stood at Rs 65 crore.
- Company has strengthened its relationships with Mitsubishi Heavy Industries (MHI) of Japan, by assisting them in establishing manufacturing operations in India. They have taken over a major cutting tools

manufacturing company; the resultant market penetration through cutting tools as well as specialised machines from MHI offers bright prospects for Mitsubishi and, in turn, the Company.

### Annual Result (Rs. in crore)

Particulars	Mar06	Mar05	Mar04	Mar03	Mar02
Gross Sales	1904.18	1441.43	1329.94	1230.41	940.66
Excise Duty	51.04	54.77	56.74	64.95	74.60
<b>Net Sales</b>	<b>1853.14</b>	<b>1386.66</b>	<b>1273.20</b>	<b>1165.46</b>	<b>866.06</b>
Other Income	81.99	27.51	68.05	40.47	80.14
Total Income	1935.13	1414.17	1341.25	1205.93	946.20
Total Expenditure	1830.95	1342.29	1279.59	1159.95	910.32
<b>Operating Profit</b>	<b>104.18</b>	<b>71.88</b>	<b>61.66</b>	<b>45.98</b>	<b>35.88</b>
Interest	1.40	3.86	1.80	2.55	5.51
Gross Profit	102.78	68.02	59.86	43.43	30.37
Depreciation	11.09	10.48	13.25	14.48	13.74
Tax	26.35	4.74	4.04	3.37	2.81
Deferred Tax	-5.15	2.39	3.54	0.00	-3.01
<b>PAT</b>	<b>70.49</b>	<b>50.41</b>	<b>39.03</b>	<b>25.58</b>	<b>16.83</b>
Equity(Face value Rs.1/share)	33.06	33.05	33.05	33.05	33.05
Dividend (%)	60.00	50.00	30.00	25.00	18.00

- There has been an overall increase in interest rates in the economy. However, although 32% growth in turnover, the interest costs of the Company has actually come down. This is the result of practical tying up of borrowings at lower cost in anticipation of hardening of interest rates and better and more effective management of working capital. Due to a lower increase in inventories and receivables, the cash flow has also been much better.
- At the end of the year, the Debt Equity ratio of the Company had improved substantially, from 0.55:1 to 0.3:1.
- On 6<sup>th</sup> September 2006, the company's shareholders approved a liberal 10-for-1 stock-split.

## Ratios

	Mar 2006	Mar 2005	Mar 2004	Mar 2003
<b>Debt-Equity Ratio</b>	0.30	0.55	0.44	0.56
<b>Current Ratio</b>	1.07	1.16	1.14	1.11
<b>Total Assets Ratio</b>	6.08	4.81	4.89	4.88
<b>Debtors Ratio</b>	4.88	3.86	3.69	4.05
<b>OPM (%)</b>	5.62	5.18	4.84	3.95
<b>NPM (%)</b>	3.8	3.64	3.07	2.19
<b>EPS</b>	2.13	15.25	11.81	7.74
<b>ROCE (%)</b>	33.24	23.97	22.65	18.25
<b>RONW (%)</b>	29.20	26.05	20.65	15.87

- OPM margins have increased from 5.18% to 5.62%.
- As a result of an overall improvement - in revenues, realizations and cost reductions, the EPS has increased from Rs.15.24 to Rs. 21.30.
- Year 06- Voltas Face value 1 Rs for one equity share.

## LIQUIDITY AND CAPITAL RESOURCES

- The Company has met the extraordinarily large outflow of cash on account of Voluntary Retirement of employees at Hyderabad Unit, and the significant capital expenditure internally.
- Company able to further reduce the Debt: Equity ratio to about 0.3:1 per end March 2006.
- The Company has set aside some surplus funds by way of investment in Mutual Funds.
- The liquidity position is adequate for meeting the normal funds requirements.

## Target Price Evaluation

Particulars	Dec 2006	Sep 2006	Jun 2006	Mar 2006	TTM 31/12/06	% Chg Q307-Q207
Type	3Qtr	2Qtr	1Qtr	4Qtr		
Net Sales	568.92	529.88	580.4	513.92	<b>2193.12</b>	7.37
Other Income	11.57	34.57	10.58	9.39	<b>66.11</b>	-66.53
Total Income	580.49	564.45	590.98	523.31	<b>2259.23</b>	2.84
Total Expenditure	543.21	528.14	554.28	483.84	<b>2109.47</b>	2.85
Operating Profit	37.28	36.31	36.7	39.47	<b>149.76</b>	2.67
Interest	1.37	1.56	0.26	-1.28	<b>1.91</b>	-12.18
Gross Profit	35.91	34.75	36.44	40.75	<b>147.85</b>	3.34
Depreciation	2.9	2.83	3.59	3.63	<b>12.95</b>	2.47
Tax	9.84	9.76	11	14.35	<b>44.95</b>	0.82
Deferred Tax	3.74	-2.84	0.1	-0.96	<b>0.04</b>	-231.69
Reported Profit After Tax	19.43	25	21.75	23.73	<b>89.91</b>	-22.28
Equity Share	3.306	3.306	3.306	3.306	<b>0.00</b>	0.00
EPS	5.88	7.56	6.58	7.18	<b>2.72</b>	-22.28
<b>TTM EPS</b>	<b>2.72</b>	(Face Value Rs. 1 / Equity Share)				
<b>CMP</b>	<b>103.8</b>					
<b>Company P/E</b>	<b>38.17</b>					
<b>Industry P/E</b>	<b>38.40</b>					

The company's order book for electromechanical projects was strong at Rs 1,900 crore as on 30 June 2006. Of these, orders worth Rs 600 crore are from domestic firms whereas the rest are from overseas, mostly from UAE.

By adding the last quarter of year 05-06 (Q4 05-06) and current years' 3 quarters, we can get the data for trailing twelve month (TTM). It shows that company will desire to achieve these results, which will be at the end of FY 06-07. Now by adding the result of Q3-07, Q2-07, Q1-07, and Q4-06, we can get expected sales and EPS figures. Now we can assume that such TTM results can be increased by 5% to 10% from the current performance of the company. So from such, target EPS are as follows.

YEAR	TTM 31/12/06	31/03/07(E)	31/03/07(E)	31/3/08(E)
Growth (%)	-----	5	10	25
SALES	2,193.12	2302.78	2412.43	2741.40
Operating Profit	149.76	157.25	164.74	187.20
PAT	89.91	94.41	98.90	112.39
EPS (Rs.)	2.72	2.86	2.99	3.40

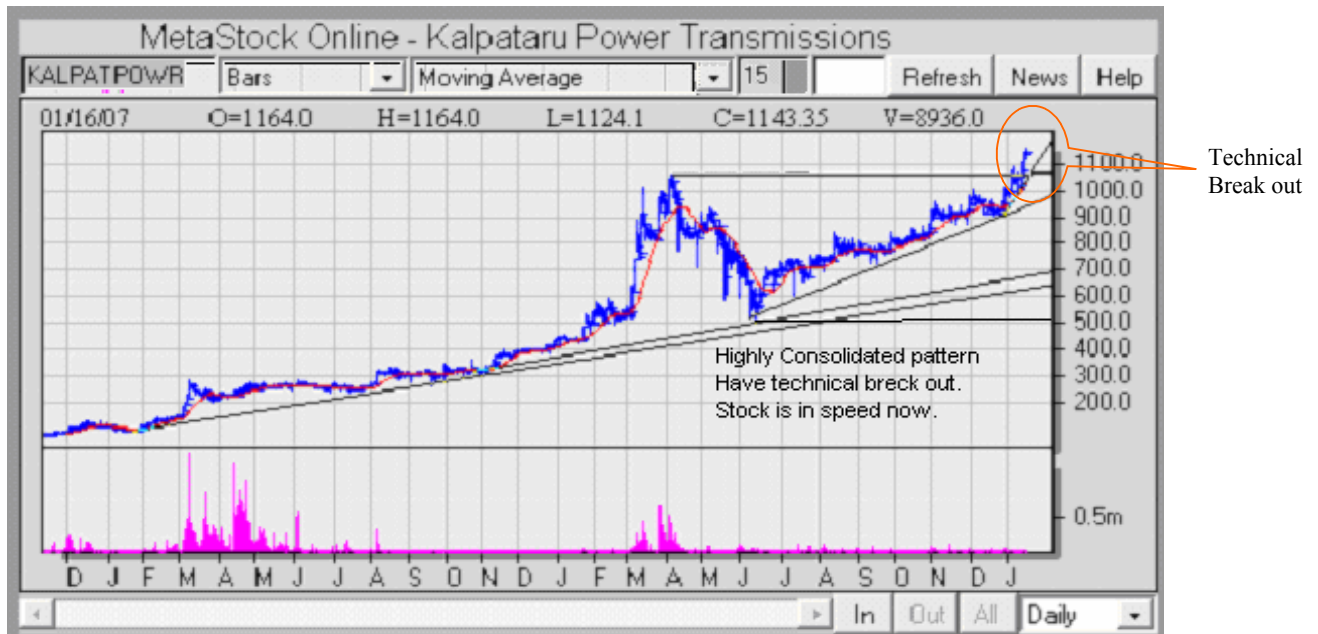
## Valuation

At the current market price of Rs 103.80, the company is quoting at the price to earning ratio of 38.17 to its TTM EPS of 2.72. Looking at the performance of the quarter ended 31/12/06, we expect the company to end the year FY07 with EPS of Rs 2.86 to 3.00. For FY08, revenue is likely to grow at least by 25%, which translates into EPS of Rs 3.40. The stock has potential to enjoy P/E of 36 to 40, which results into target price as follows:

Expected Market Price at different Combinations of P/E & EPS				
EPS Growth (%)	--	5 (07E)	10 (07E)	25 (08E)
EPS (Rs.) at Different Growth Rates	2.72	2.86	2.99	3.40
P/E (X) Ratio				
36	97.91	102.80	107.70	122.38
38	103.34	108.51	113.68	129.18
40	108.78	114.22	119.66	135.98

# TECHNICAL ANALYSIS

## Kalpataru Power Transmission Technical Analysis



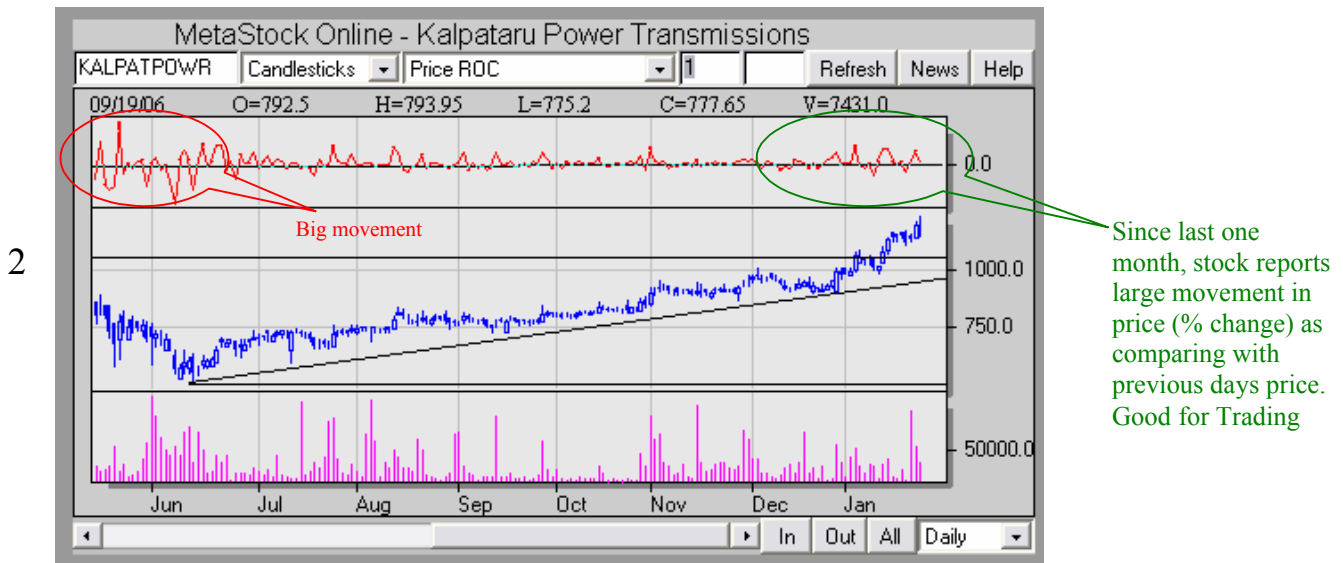
- Chart pattern is highly consolidated which is seen from the support and resistance level. As price is on life time high which shows that previous 52 week high price is been breaking out. Now currently stock is moving around 1200 Rs, which shows that there are new buyers available in the market so seller will negotiate more at that time.
- Trend lines indicate that stock is in full speed, which make new records day wise. Selling pressure is very low here seller will negotiate more because price is on lifetime high, so price will go up in future.

## Market Indicators





## Price Rate of Change (ROC)



- By seeing 1<sup>st</sup> chart person who has taken long position, should hold the stock because stock is in bullish face. He should have to exit when small term moving average drops below the long run moving average line. So by using medium terms cutting stock will definitely give good returns.
- In Price ROC, we come to know that in month January 2007, stock deals with high volatile as comparing with previous days' price. One can do trade in intraday for getting more return like t and it is sure that stock will give high return in long run.

## Target Price

	Price 1 (Date)	Price 2 (Date)
Previous Recorded High	1059.40 (05/04/06)	
Previous Recorded Low	527.80 (09/06/06)	725.05 (12/09/06)

Particulars	Target Price
Stop Loss	<b>1100/990</b>
Buy above	<b>1061.40</b>
Medium Target	<b>1393.35</b>
Long term Target	<b>1591.00</b>

## New Support and Resistance Level

Date – 24/01/07

Company	High	Low	Close	Average (Pivot Point)
Kalpataru Power	1230.00	1150.00	1196.85	1192.28

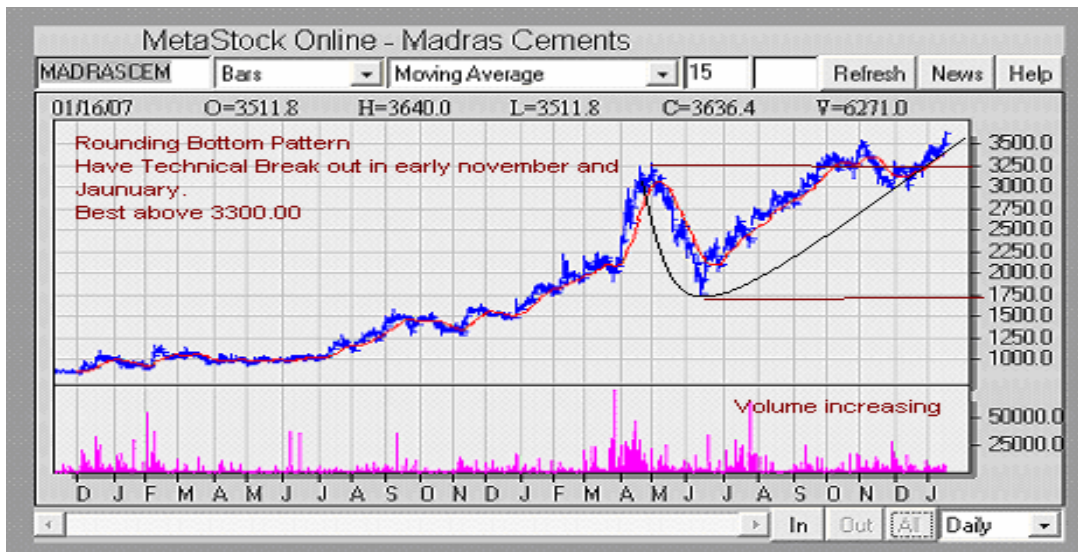
Particulars	Formula	Prices
Resistance Level – 1	$(PP \times 2) - Low$	1234.57
Resistance Level – 2	$PP + (High - Low)$	12.72.28
Support Level – 1	$(PP \times 2) - High$	1154.57
Support Level – 2	$PP - (High - Low)$	1112.28

So from the previous day's closing price, we can call for today's resistance and support level. R-1 and S-1 is the new level for today's intraday business.

When securities cross R-1, than R-2 will be new resistance level and R-1 will become support level for R-2.

And on the other side when securities crosses S-1, than S-2 will be new support level and S-1 will become resistance level for S-2.

## Madras Cement Technical Analysis



- Madras cement currently showing Rounding bottom pattern. Under such pattern various bottom are selected and one rounding line is prepared. So such rounding line will remain continuous in future, which shows that stock will go up in future.
- Stock has achieved technical break out more than two time an that time stock is reporting good volume on both exchange. So we can say that stock will perform well in future.
- 2<sup>nd</sup> chart shows various support and resistance level for the short term forecasting. If stock break out such level (both), helps in estimating future.

## Market Indicators

### Moving Average Crossover



Short term MA line is above the Long term MA line. Hold the stock, will perform better. Or even one can sell to book profit.

### Price Oscillator



As above one can sell stock to book profit. Here oscillator proving that currently selling is happening in market to book profit, as red line is below the zero line.

- As per Moving Average crossover 20-50 cuttings says that stock is in bullish phase. One can sell stock to book profit.
- And PPO is proving that currently selling is happening in stock because it is below the zero line as per difference between 2 days moving average and 10 days moving average price.
- So buy stock if it holds above 3300 for a week than there is more chance of upward movement in stock.

## Target Price

	Price 1 (Date)	Price 2 (Date)
Previous Recorded High	3220.00 (24/04/06)	3549.80 (02/11/06)
Previous Recorded Low	1745.00 (13/06/06)	2975.15 (28/11/06)

Particulars	Target Price
Stop Loss	<b>3100/3000</b>
Buy Above	<b>3300.00</b>
Short term Target	<b>4123.05</b>
Medium Target	<b>3464.85</b>
Long term Target	<b>4631/4695</b>

## New Support and Resistance Level

Date – 24/01/07

Company	High	Low	Close	Average (PP)
Madras Cement	3450.00	3400.00	3430.00	3436.67

Particulars	Formula	Prices
<b>Resistance Level – 1</b>	$(PP \times 2) - Low$	3453.33
<b>Resistance Level – 2</b>	$PP + (High - Low)$	3476.67
<b>Support Level – 1</b>	$(PP \times 2) - High$	3403.33
<b>Support Level – 2</b>	$PP - (High - Low)$	3376.67

So from the previous day's closing price, we can call for today's resistance and support level. R-1 and S-1 is the new level for today's intraday business.

When securities cross R-1, than R-2 will be new resistance level and R-1 will become support level for R-2.

And on the other side when securities crosses S-1, than S-2 will be new support level and S-1 will become resistance level for S-2.

## India Cement Technical Analysis

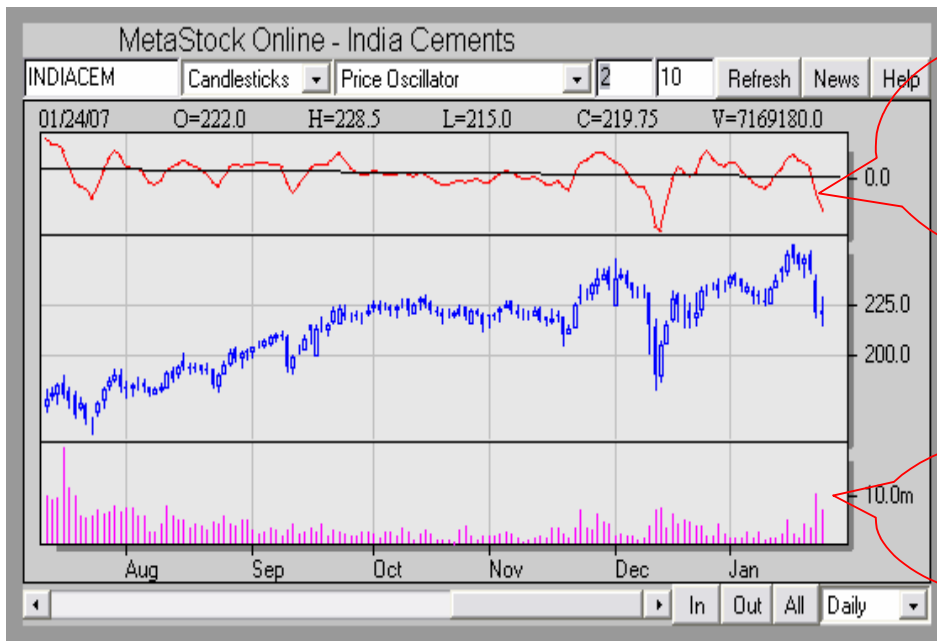


- The above chart is totally based on highly consolidated pattern. Under such pattern stock is moving between its support and resistance line.
- Stock has reported a slow speed in their movement as per 1<sup>st</sup> trend line but 2<sup>nd</sup> and 3<sup>rd</sup> trend line suggest that stock is moving so fast since last four, five months so stock is more volatile in nature.
- Since last 5 to 6 months volume is increasing, which is good sign for the stock future.

## Market Indicators



Stock is showing good because long run MA line is below the line of short term moving average line. So hold the stock. N new buyer enter after 249.00



As said above it is totally opposite over here. PPO suggests that there is oversold situation exist in this stock. So it may happen that stock will be in down ward trend.

Another reason is that there is high volume when stock price falls. So possibility of price falling is higher

## Target Price

	Price 1 (Date)	Price 2 (Date)	Price 3 (Date)
Previous Recorded High	249.00 (02/05/06)		
Previous Recorded Low	175.00 (29/05/06)	190.06 (12/12/06)	214.00 (12/12/06)

Particulars	Target Price
Stop Loss	<b>225/219.45</b>
Buy Above	<b>250.00</b>
Short term Target	<b>284.00</b>
Medium Target	<b>307.40</b>
Long term Target	<b>324.00</b>

## New Support and Resistance Level

Date – 24/01/07

Company	High	Low	Close	Average (PP)
India Cement	224.85	221.95	222.10	222.97

Particulars	Formula	Prices
<b>Resistance Level – 1</b>	$(PP \times 2) - \text{Low}$	223.98
<b>Resistance Level – 2</b>	$PP + (\text{High} - \text{Low})$	225.87
<b>Support Level – 1</b>	$(PP \times 2) - \text{High}$	221.08
<b>Support Level – 2</b>	$PP - (\text{High} - \text{Low})$	220.07

So from the previous day's closing price, we can call for today's resistance and support level. R-1 and S-1 is the new level for today's intraday business.

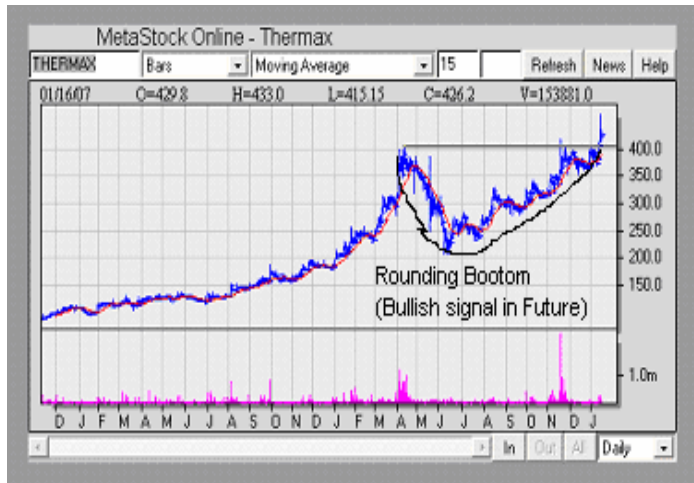
When securities cross R-1, than R-2 will be new resistance level and R-1 will become support level for R-2.

And on the other side when securities crosses S-1, than S-2 will be new support level and S-1 will become resistance level for S-2.



# Thermax Technical Analysis

1



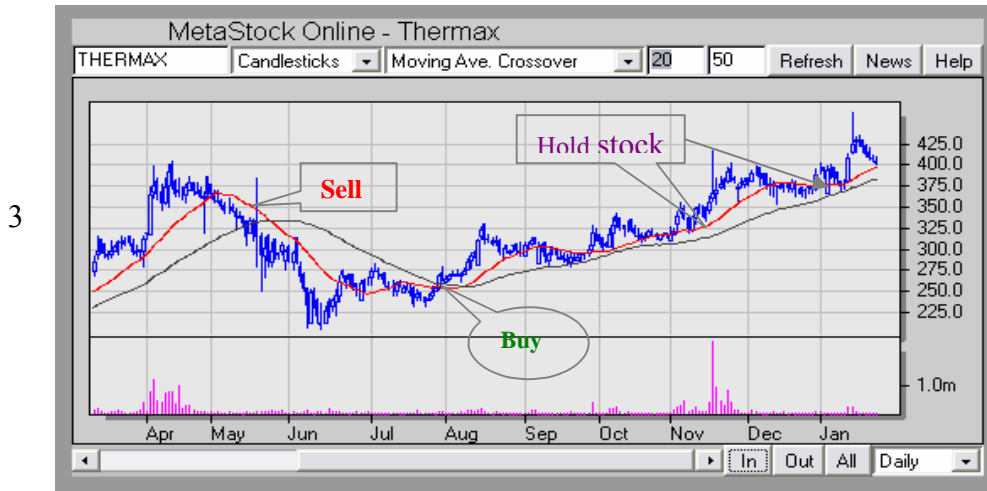
2



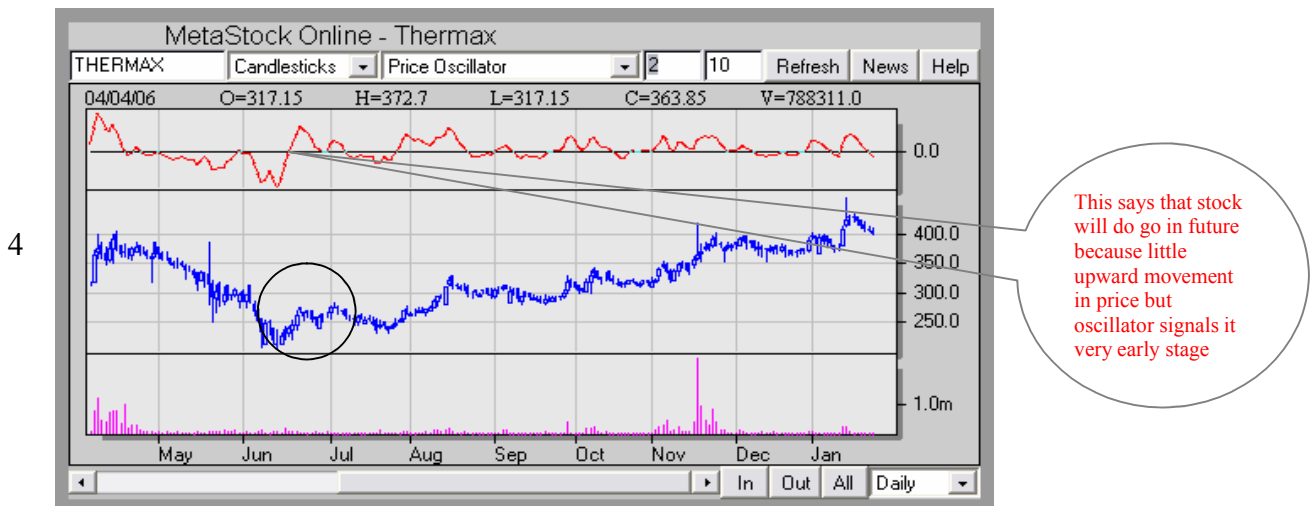
- From the 1<sup>st</sup> chart, we come to know that there is a Rounding Bottom pattern, which signals that each bottom after a support level moves in an upward direction. Another reason is that the stock has achieved its technical breakout in the early days of January 2007. So it indicates that the previous buyer at Rs. 400 (52-week high) will definitely come out from the market. So the price will go up in the future.
- The 2<sup>nd</sup> chart shows various trend lines, which measure the speed of the stock in the market. The 1<sup>st</sup> trend line seems to be a long-term support level, while the 2<sup>nd</sup> gear/ trend line shows the stock is moving so fast in the market. Once the stock breaks the 2<sup>nd</sup> support level, the second target for the support level is the 1<sup>st</sup> trend line. The reason for the bullish signal in the stock is that now a day's stock is reporting high volume in intraday business, which is seen from the December 2006 figure.
- **Why I am not purchasing stock at Rs. 200.** The basic reason behind this is that there is no support level that the stock has previously achieved. So once there is upward movement taking place in the stock, which results in a particular buying opportunity.

## Market Indicator

### Moving Average Crossover



### Price Oscillator



- Seeing 3<sup>rd</sup> chart, investor should hold there stock because short term moving average (20 days) line is in upward direction from the long term moving average (50 days). 20 days moving average shows, stock is in bullish position. There are various cuttings for moving average crossover.
  - Very short term cuttings 2-5 or 2-10 days
  - Medium term cuttings 20-50 or 20-100 days
  - Long term and more reliable cutting is 50-200 days

## Target Price

	Price 1 (Date)	Price 2 (Date)	Price 3 (Date)
Previous Recorded High	405.00 (17/04/06)	417.00	
Previous Recorded Low	206.00 (14/06/06)	280.10 (20/09/06)	353.00 (13/12/06)

Particulars	Target Price
Stop Loss	<b>370</b>
Short term Target	<b>481.00</b>
Medium Target	<b>529.90</b>
Long term Target	<b>604/580</b>

## New Support and Resistance Level

Date – 24/01/07

Company	High	Low	Close	Average (PP)
Thermax	409.00	400.30	405.00	404.77

Particulars	Formula	Prices
<b>Resistance Level – 1</b>	$(PP \times 2) - Low$	409.23
<b>Resistance Level – 2</b>	$PP + (High - Low)$	413.47
<b>Support Level – 1</b>	$(PP \times 2) - High$	400.53
<b>Support Level – 2</b>	$PP - (High - Low)$	396.07

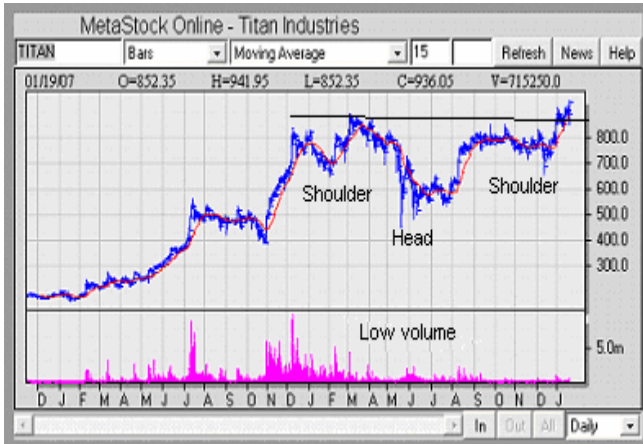
So from the previous day's closing price, we can call for today's resistance and support level. R-1 and S-1 is the new level for today's intraday business.

When securities cross R-1, than R-2 will be new resistance level and R-1 will become support level for R-2.

And on the other side when securities crosses S-1, than S-2 will be new support level and S-1 will become resistance level for S-2.

# Titan Technical Analysis

1



2



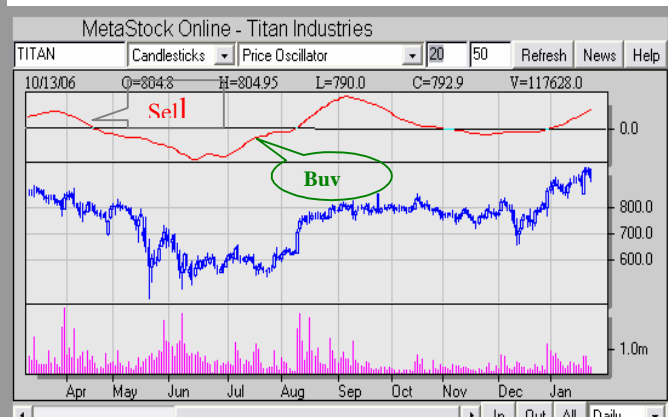
- From the 1<sup>st</sup> chart, we come know that there is bullish head & shoulder pattern. Titan made a first shoulder at around 650 Rs. after than it back to its neck line but again stock tries to find out new support level beyond the level of previous shoulder level and as a result one head comes in to picture. So once head completed than again one shoulder comes in to picture as the same or nearer price to the previous shoulder support level. So bullish head & shoulder indicates that the stock will go up in future because the volume is very low at all that point of head and shoulder
- 2<sup>nd</sup> shows various trend lines, which measures the speediness of the stock in the market. 1<sup>st</sup> trend line seems to be a long term support level, while 2<sup>nd</sup> gear/ trend line shows the stock is moving so fast in the market. Once stock breaks the 2<sup>nd</sup> support level than second target for support level is 1st trend line.

## Market Indicators

3



4



- 3<sup>rd</sup> chart shows the moving average of crossover between 20 days and 50 days (cuttings). This 20-50 cutting is for medium term perspective. Red line indicate 20 days moving average while black line is for 50 days moving average. Now a days stock is on bullish side because 20 days moving average line is above the 50 days line.
  - a) When Red line cuts below the black line and go in upward direction than price will go up in future which shows there is buying opportunity in the stock.
  - b) When Red line cuts above the black line and goes in downward than price will go down in future which shows selling otherwise big loss can happen.
- The Price Oscillator is a momentum indicator that plots the difference between two moving averages i.e. 20 days and 50 days. The PPO uses percentages. The PPO is most effective in wide-swinging trending markets and tends to lag price movements. Under this stock...
  - Crossovers –buy when the PPO crosses up over its signal line and sell or sell short when it cross down through its signal line. Also look to buy and sell when the PPO crosses up or down through the zero line.
  - Divergence – The PPO will generally lag the underlying slightly (i.e. when a stock moves up so will the PPO but slightly delayed), but when a divergence occurs where the PPO fails to confirm the underlying issue's movement, the stock price typically reverses. So if

a stock is rallying and the PPO tops out and starts to head down, a big hint is being given that the stock too will top out soon. On the other hand, if a stock falls but the PPO flattens out and starts to move up, a near-term bottom in the stock is likely.

### Target Price

	Price 1 (Date)	Price 2 (Date)	Price 3 (Date)
Previous Recorded High	894.95 (06/06/06)	849.00 (17/10/06)	
Previous Recorded Low	450.00 (22/05/06)	533.00 (24/07/06)	657.25 (12/12/06)

Particulars	Target Price
Stop Loss	<b>846/716</b>
Buy Above	<b>897.00</b>
Short term Target	<b>1040.75</b>
Medium Target	<b>1256.90</b>
Long term Target	<b>1339.90</b>

### New Support and Resistance Level

Date – 24/01/07

Company	High	Low	Close	Average (PP)
Titan	947.05	907.00	938.00	930.68

Particulars	Formula	Prices
<b>Resistance Level – 1</b>	$(PP \times 2) - Low$	954.37
<b>Resistance Level – 2</b>	$PP + (High - Low)$	970.73
<b>Support Level – 1</b>	$(PP \times 2) - High$	914.32
<b>Support Level – 2</b>	$PP - (High - Low)$	890.63

So from the previous day's closing price, we can call for today's resistance and support level. R-1 and S-1 is the new level for today's intraday business.

When securities cross R-1, than R-2 will be new resistance level and R-1 will become support level for R-2.

And on the other side when securities crosses S-1, than S-2 will be new support level and S-1 will become resistance level for S-2.

## Voltas Technical Analysis



- By seeing the above chart, we come to know that chart pattern is highly consolidated. It has already made a support and resistance level. And since last couple of month stock is moving in this direction. But stock has achieved its 1<sup>st</sup> technical break out at that time market show high volume.
- Once stock crosses its new resistance level and holds that level for couple of days than we can say that stock is ready to go in upward direction.
- By seeing trend line, stock has already caught its speed.
- Large volume suggesting that stock is in demand in market.

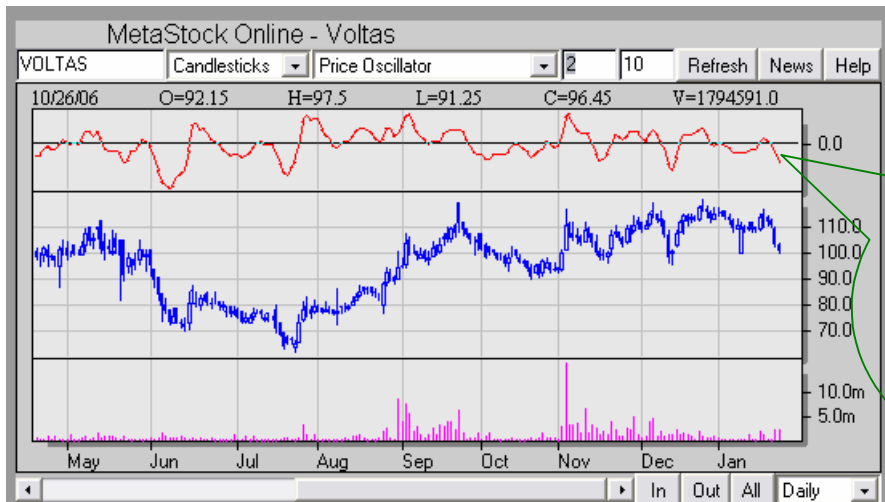
## Market Indicators

### Moving Average Crossover



Not enter in to stock at this time because short term MA may cross the long Run MA. So Bearish Market

## Price Oscillator



As said above that market is bearish and it is proving over here. As share is now over sold in the market so more chances of falling share price in coming future. So when stock gears up in upward direction then take long position is more beneficial.

- Over here moving average crossover propose that Voltas may fall in coming future because by using 20-50 days cuttings short term MA line is very nearer to long term MA line.
- As said in above statement, I can say that in 2<sup>nd</sup> chart the stock is having more sellers because it is below the zero line. So oversold situation is existing in the market.
- Below some target are given. Investor should come in to market when stock touch above 118 and holds for couple of days than good opportunity of buying as well as good return.



## Target Price

	Price 1 (Date)	Price 2 (Date)	Price 3 (Date)
Previous Recorded High	118.95 (22/09/06)		
Previous Recorded Low	66.00 (24/07/06)	90.00 (20/10/06)	108.01 (08/01/06)

Particulars	Target Price
Stop Loss	<b>108.1/95.75</b>
Buy above	<b>118.00</b>
Very Short term Target	<b>129.80</b>
Medium Target	<b>147.90</b>
Long term Target	<b>158/156</b>

## New Support and Resistance Level

Date – 24/01/07

Company	High	Low	Close	Average (PP)
Voltas	104.25	100.25	103.80	102.77

Particulars	Formula	Prices
<b>Resistance Level – 1</b>	$(PP \times 2) - Low$	105.28
<b>Resistance Level – 2</b>	$PP + (High - Low)$	106.77
<b>Support Level – 1</b>	$(PP \times 2) - High$	101.28
<b>Support Level – 2</b>	$PP - (High - Low)$	98.77

So from the previous day's closing price, we can call for today's resistance and support level. R-1 and S-1 is the new level for today's intraday business.

When securities cross R-1, than R-2 will be new resistance level and R-1 will become support level for R-2.

And on the other side when securities crosses S-1, than S-2 will be new support level and S-1 will become resistance level for S-2.

## **Chapter – 5**

### ***LIMITATIONS OF PROJECT***

- Insufficient time because of this limit period, I have chosen only six companies which is giving good return. But in market there are lots of securities which offering more return as comparing with selected securities. So, that could not be find out from the overall point of view best investment opportunities in selected companies from that sector.
- Due to insufficient data given in the financial statement, some financial ratio could not be found out.
- Indian stock market is not stable. It keeps on fluctuating so ratio derived today may not consider as useful tool of valuation tomorrow.
- Market is totally based on sentiments so targeted price is only based on financial statement analysis and less on current market happening.
- As the study is depending on the information from the different sources, the reliability of study is depending on the reliability of information.
- Lack of technology which could make the common or retail investor aware about the trend or the chart patterns design by the stocks movements. They have to always rely over the brokers for getting this information.
- Its not concrete source wherein the investor can rely on patterns or charts as the stock can show the adverse movement or different movement than what is anticipated in the charts

## **Chapter – 6**

### **SUGGESTION**

- Investors can also analysis the shareholding pattern of different companies. The experts in stock market speak that if foreign institutional investors and mutual funds hold high percentage in total company's share holding, company has good potential for growth. Because FIIs and MFs have good research techniques to observer the companies' financial performance and that's why they are willing to invest for particular companies in India.
- While preparing the portfolio, the investors should consider Midcap companies also, if they are providing good returns. The portfolio of the investors should be diversified in such a way that it consist the whole market behavior i.e. it should have qualities of Largecap, Smallcap as well as Midcap companies.

## **Chapter – 7**

### **CONCLUSION**

- So as per my problem statement, yes investment in CNX Midcap companies are safe and more reward oriented. All the companies belonging to Midcap have only one reason i.e. they have issued less number of shares. Even the prices of such securities are above the companies of SENSEX and Nifty. The companies, which are selected as per optimum portfolio, have performed well in recent past. The optimum portfolio gives return around 37% while risk is around 1.3. So it is more beneficial as compare to other investment avenues.
- The sectors which are selected have a good potential to outperform the market in long-term to its good fundamentals. And companies, which are selected, have made technical breakout in December 2006, so such companies will perform better in recent future.
- Kalpataru Power and Titan will prove to be good as per both fundamental and technical in future. Because such companies are now days more demanded by and offering good returns to investor. So investments in such companies are considered to be more worthy.
- If selected securities are performing as per target prices, investor should include those securities in their portfolio.

## **Chapter – 8**

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