



### Stock Details

<b>BSE Code</b>	<b>517166</b>
<b>Face Value (Rs )</b>	<b>10.00</b>
<b>52 Wk High (BSE)</b>	<b>37.50</b>
<b>52 Wk Low (BSE)</b>	<b>14.00</b>

### Key Statistics

Rs. In Mn.	FY08 E	FY07 A
<b>Sales</b>	<b>669.67</b>	<b>539.29</b>
<b>% Growth</b>	<b>24.18</b>	<b>16.45</b>
<b>PAT</b>	<b>42.16</b>	<b>39.44</b>
<b>% Growth</b>	<b>6.90</b>	<b>49.39</b>
<b>Equity</b>	<b>454.51</b>	<b>454.51</b>
<b>Mkt Cap.</b>	<b>1065.8</b>	<b>1065.8</b>
<b>Book Value Rs.</b>	<b>11</b>	<b>10.66</b>
<b>Sales/Mkt Cap</b>	<b>0.63</b>	<b>0.51</b>
<b>P/B</b>	<b>2.13</b>	<b>2.2</b>

### Company Profile

SPEL Semiconductor Limited is a Chennai-based, BSE listed company. The company was established in 1988, and entered International market in 1995. The company has a Sales & Technical support office based at Santa Clara, USA.

Incorporated as Spic Electronics and Systems (SPEL), the company was promoted by Southern Petrochemical Industries Corporation Ltd, a leading fertiliser manufacturer. The name of the company was changed to SPEL Semiconductor Ltd in the year 2000.

SPEL is India's oldest IC (Integrated Circuit) assembly and test house and a 100% EOU (Export Oriented Unit). It has ISO 9001, ISO 14001 & TS 16949 quality certifications.

SPEL has a wholly owned subsidiary company SPEL America Inc, in California, USA, which provides the marketing services for its international business.

### About the Business

SPEL is a leading one-stop turnkey Wafer Sort, IC Assembly & Test subcon facility in India. SPEL ICs are used globally in consumer electronics applications such as Cell Phones, PDAs, Desktop PCs, Notebook Computers, Digital Cameras and Automobiles. SPEL's current capacity is over 252 Million units per annum.

The company offers onsite & offshore test engineering support to customers. The company provides assembly of wide range of packages from through-hole to surface mount. It has the ability to assemble thin packages (1.0 mm), handle very low loop (5mils) and fine bond pad pitch (50 microns).

Year (Rs. Mn.)	Sales	EBIDTA	PAT	NPM %	EPS	P/E	Book Value
FY09 E	930	218.25	*266.16	**9.48	5.85	4.01	15.97
FY08 E	669.67	150.39	42.16	6.29	0.93	25.21	11.00
FY07 A	539.29	109.60	39.44	7.31	0.87	26.95	10.66

\*Includes revenue from SEZ Business

\*\* NPM on overall earnings is 28.61%

## About the Business

### *Future Plans :*

SPEL is in process of a \$286 Mn expansion project spread over 5 years.

- As a part of their expansion plan, the company inaugurated a \$5 million, lead-free IC planting facility at the company complex in Chennai in September 2006.
- SEZ : SPEL has received the approval from state government and central government to set up the Special Economic Zone within the company's own land. SEZ will be a revenue generator to the Company. The SEZ will come up on a 25.2 acre land the company owns adjacent to its plant at Marimalainagar, it is expected to attract investment in excess of Rs. 2,000 crore over a period of time. The company is looking at various options of establishing SEZ including, collocating some of the outside companies. SEZ will accommodate some of the companies who have expertise in high end packages.  
(Source :India Daily)
- The company is partnering with Chiptest India to set up a semiconductor training academy in Chennai and has signed with SRM Engineering College to conduct joint R&D in semiconductor back-end activities.
- In January 2007, SPEL Semiconductor has tied up with California Micro Devices (CMD) of Milpitas, California to install a couple of fresh lines in LMP (leadless moulded package). The two new micro thin package lines are: thin leadless moulded package (TLMP) and ultra thin leadless moulded package (UTLMP). They basically find applications in mobile handsets. Also the company has invested in quality assurance & facilities equipments, which will further improve manufacturing capabilities and reduce cost of production.

### *Tie-Ups :*

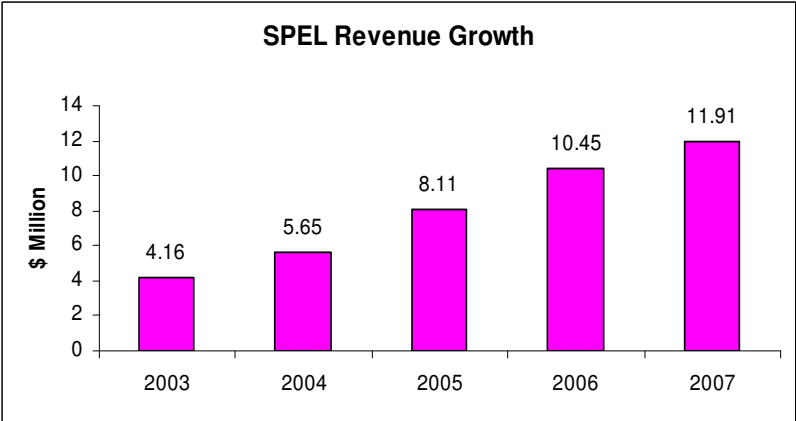
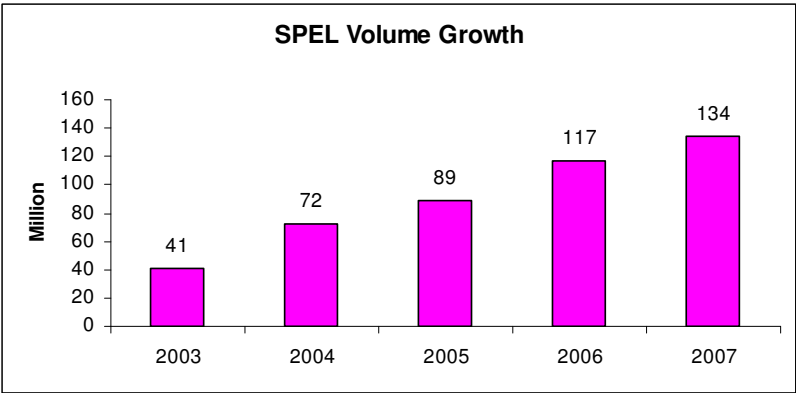
- SPEL has teamed up with South Korea's Sunyang DNT Co. to design, manufacture and marketing of camera modules for use in phones, notebooks and PDAs. Sunyang will also market Spel's assembly and test services in South Korea. Semiconductor equipment manufacturer Sunyang has an existing camera module business and operates a plant in China.
- SPEL has tied up with California Micro Devices (CMD) to install TLMP and UTLMP. The installation of these two lines would involve an investment of \$7.75 million. The project will be financed through \$2.2 million contribution from CMD, \$1.5 million loan from Indian Overseas Bank and rest through internal resources. As per agreement, SPEL would buy chips from CMD and assemble and test them at its facility in Maraimalainagar for onward shipment to CMD.

### *Customers :*

Pericom Semiconductor Corpn, Zilog, Vishay, O2Micro, PulseCore, SMX, Data Delay Devices Inc., MSI Corpn., Fairchild Semiconductor, SCT,CMD, Silego, Asic Adavantage Inc., Calogic, That Corpn., Protek Devices, etc.

## About the Business

### SPEL – Volume & Revenue Growth



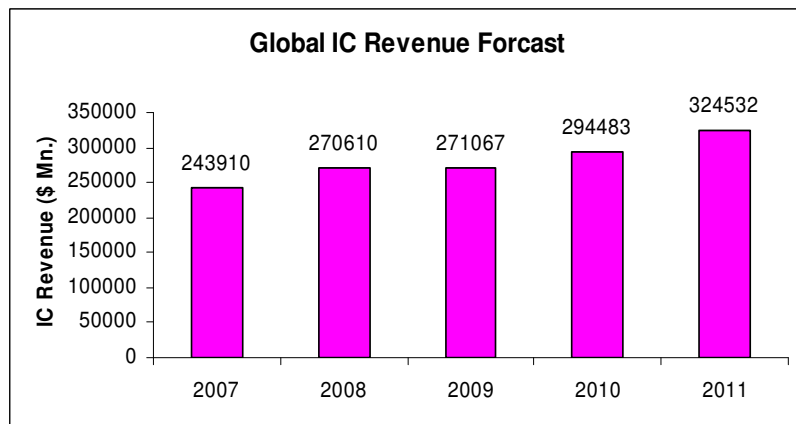
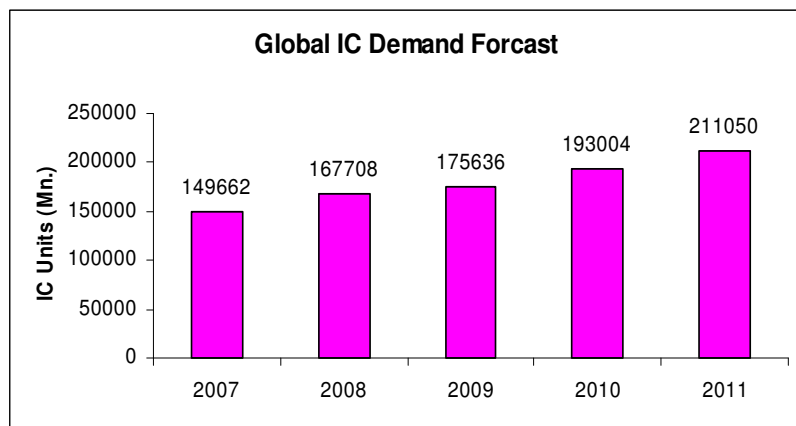
(Source : Company)

## Industry Review

As per the preliminary survey of Gartner Reports, the worldwide semiconductor assembly and test services (SATS) market exhibited double-digit growth for the fifth consecutive year in 2006 and its revenue increased by 26%.

Worldwide IC revenue is forecasted to reach \$276.6 billion in 2007, an increase of 6 per cent from 2006 revenues of \$260.9 billion. During the year 2010, revenues are expected to reach \$306 billion. The global volume and revenue forecast for Integrated Circuits, is given in the charts below.

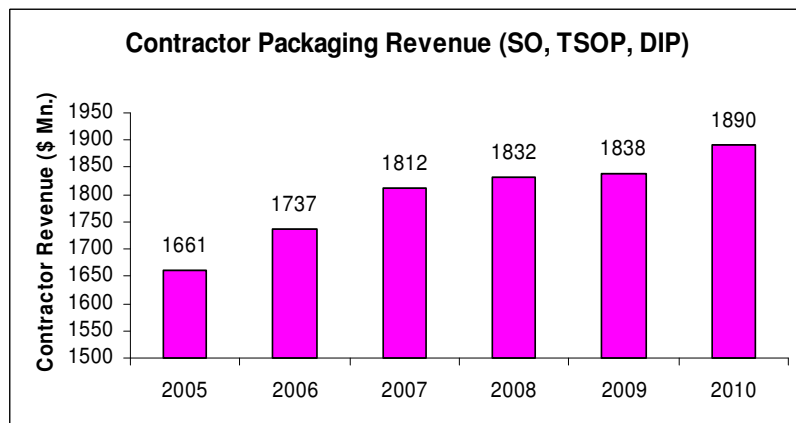
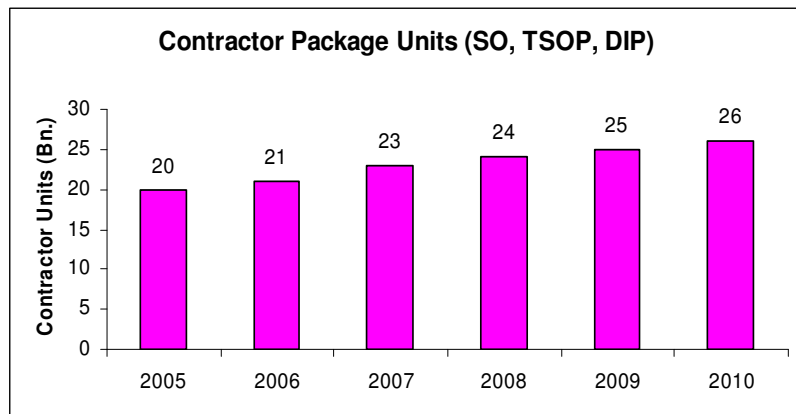
(Source : Company)



## Industry Review...

The contractor package units which are at 44 billion units in 2006 are expected to grow over 78 billion units in 2011, with an average CAGR of 12.3%. In terms of revenue for contractor packaging from the present level of 10 billion in 2006, it is expected to reach \$19 billion in 2011.

The industry projections for contractor packaging in respect of the products of SPEL, is presently engaged in are as shown below.  
(Source : Company)



## Industry Review ...

### *Indian Scenario*

Semiconductor product consumption in India is still in early stages of growth as compared to developed economies. Several Asian countries joined the electronic manufacturing bandwagon early and built a strong electronic manufacturing industrial base to address primarily the export markets. During this period, India had a good engineering tradition focused on the import substitution model for electronics manufacture. This combined with a complex taxation system contributed to a limited local electronic product manufacturing base reflected in low consumption of semiconductor products. In the last few years, rapid liberalisation of several segments of industry and commerce combined with sustained GDP growth and world class software and services export business has pushed IT and communication product consumption in the country. Added to this, rising living standards and increasing disposable incomes have seen a surge in the consumption of consumer durables and hence demand for semiconductor products.

The major semiconductor user segments are mobile phones, communication infrastructure products, IT products such as computers, printers, display systems, networking products, televisions, industrial automation, process controls, point of sale terminals, audio equipment, washing machines, microwaves, energy meters, security systems, automotive electronics, defence electronics and space programmes.

As per the Indian Semiconductor Association and the analyst firm Frost & Sullivan market research report on the Indian Semiconductor Industry, the consumption of electronic equipment in the country will grow to \$360 billion by 2015, with the chip sector worth \$35 billion to \$43 billion. As per this report, the Indian electronics equipment production grew at a growth rate of 25 per cent in 2005, which is expected to reach a growth rate of 50 per cent in 2010 and 34 per cent in 2015. Indian electronics equipment manufacturing is expected to grow at 5.5 times the growth rate of global electronics equipment production during 2010 and 2015.

Also it reveals that the semiconductor and embedded design industry in India generated revenue of \$3.25 bn in 2005 which is expected to boom to \$43 bn by 2015 growing at a CAGR of 30 per cent till 2015.

(Source : Indian Semiconductor Association)

## Industry Review ...

### *Indian Scenario...*

From a fabless country with a strong focus on the so called back end services, India is now moving towards an IC manufacturing hub slowly and steadily. Various companies are coming into India and making tie ups etc for setting up their manufacturing facilities.

Reliance Industries has recently announced a \$6 billion investment plan to foray into the manufacture of semi-conductors. The company will manufacture silicon chips used in devices such as mobile phones and computers and also liquid crystal display units and solar photovoltaic cells. The project is expected to be located in the company's upcoming Special Economic Zone (SEZ) in Navi Mumbai.

Hindustan Semiconductor Manufacturing Corporation (HSMC) plans to set up fabrication manufacturing facilities in the country at an investment of \$4 billion. The Germany-based Infineon has agreed to license its technology to HSMC for the production of integrated circuits for mobile phones, ID cards and automotives for the Indian market. HSMC plans to set up two semiconductor manufacturing facilities.

SEMINDIA zeroed in on Hyderabad with a \$3-billion investment for Fab City.

Even companies like Intel, Nest Technologies are looking to set up manufacturing bases in India.

This will provide a great opportunity to companies like SPEL which are involved in assembly and testing.

## *Strengths & Opportunities*

- The company is an oldest IC assembly and test house in India and holds tremendous industry experience which could be leveraged in future.
- The company's share in global IC market is comparatively small and thus there is good potential for growth in terms of volumes and revenues especially with the growing Indian market
- Low Attrition Rate :The Company is able to retain its employees for long thereby able to reap on the benefits of investment in training its HR.
- Cost Competitive – Availability of good technical manpower at low cost in India which brings down labour costs significantly.
- The company has introduced a new Leadless Molded Package (LMP). This is a niche package which is expected to generate more revenue.
- Customs – Zero duty (100% Export Oriented Unit). SPEL holds a Green Channel status for imports and exports. This enables quick customs clearance without any open inspection - typical clearance time is 6 working hours.
- SEZ benefit - SEZ will be a revenue generator to the Company. The company is looking at various options of establishing SEZ including, collocating some of the outside companies. SEZ will accommodate some of the companies who have expertise in high end packages.
- The coming of companies like Semindia etc which wants to establish manufacturing units will provide a lucrative revenue opportunity in the future.



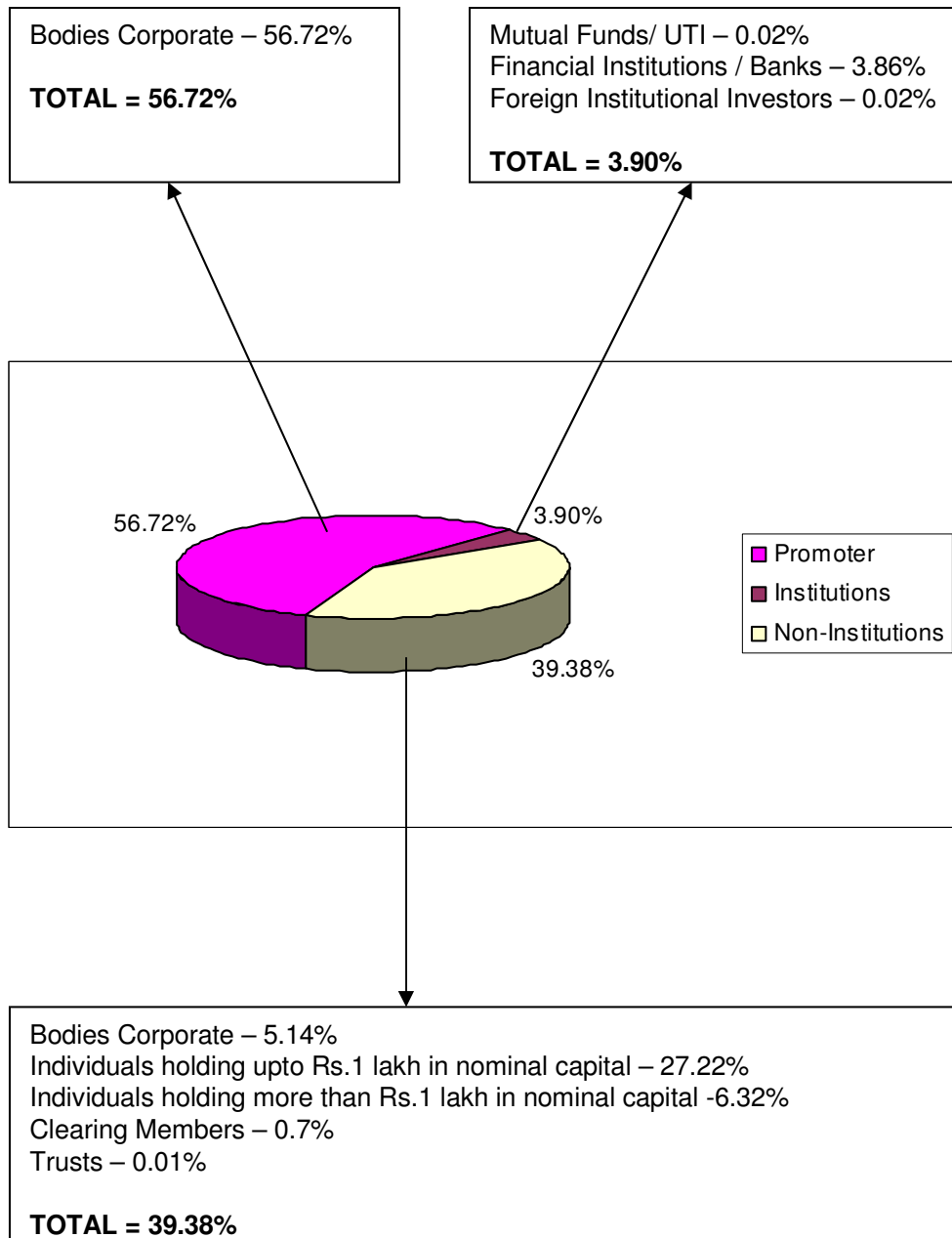
### *Risk & Concern*

- Rupee appreciation: The company is a 100% EOU and thus greatly expose to the foreign exchange rate fluctuations. The company generates significant business from the US. So rupee appreciation might hamper the revenue of the company in the times ahead.
- Fast changing technology :Being a technology driven business the technology used today might become redundant tomorrow; hence the company needs to regularly benchmark itself against its competitors and other global giants.
- Competition from neighboring countries : Emergence of other off shoring destinations such as China, Taiwan could provide tough competition to India even for semiconductor sector.
- The tax benefits under section 10A & 10B of Income Tax Act 1961 – Existing units which commenced operations prior to April 1, 2000 and claimed deduction under the provisions of erstwhile sections 10A/ 10B, can continue to claim such deduction under the provisions of newly substituted sections 10A/ 10B for the unexpired period of ten consecutive assessment years. If this incentive would not be extended for a further period from FY10, this could have an adverse effect on the profitability of the company..

### *Threats :*

- The company has significant presence in the US market and hence it is exposed to the economic trends existing in the US economy..
- Uninterrupted cost-effective power and water supply is required for the semiconductor industry. The high power tariff has resulted in high production cost.

## SHAREHOLDING PATTERN



<b>Income Statement (Consolidated)</b>				<b>(Rs. Mn.)</b>
<b>Type</b>	<b>Estimated</b>	<b>Estimated</b>	<b>Estimated</b>	<b>Audited</b>
<b>Year</b>	<b>2009-10</b>	<b>2008-09</b>	<b>2007-08</b>	<b>2006-07</b>
Net Sales	1035.19	930.00	669.67	539.29
Total Expenditure	799.46	711.75	519.28	429.69
EBITDA	235.73	218.25	150.39	109.60
Depreciation	69.00	65.00	58.00	42.86
EBIT	166.73	153.25	92.39	66.74
Interest	45.00	40.00	35.39	14.58
Other Income	40.00	30.00	11.00	11.95
Revenue from SEZ	125.00	200.00	0.00	0.00
PBT	286.73	343.25	68.00	64.11
Tax	75.61	77.09	25.84	24.67
Reported PAT	211.12	266.16	42.16	39.44

<b>Consolidated Balance Sheet</b>		<b>(Rs. Mn.)</b>		
	<b>FY10 E</b>	<b>FY09 E</b>	<b>FY08 E</b>	<b>FY07 A</b>
<b>Source Of Funds</b>				
Share Capital	454.51	454.51	454.51	454.51
Reserves & Surplus	429.54	271.59	45.46	29.89
Loan Fund	611.62	511.62	460.62	290.68
Deferred Tax Liability	22.35	22.35	22.35	22.36
Other Liabilities	179.34	110.56	34.44	0
<b>Total</b>	<b>1697.36</b>	<b>1370.63</b>	<b>1017.38</b>	<b>797.44</b>
<b>Application of Funds</b>				
Gross Blocks	1400.5	1253.5	1100.5	945.53
Less : Depreciation	547.74	478.74	413.74	355.75
Net Blocks	852.76	774.76	686.76	589.78
Capital Work in Progress	105.5	95.5	95.5	87.04
	958.26	870.26	782.26	676.82
Inventories	195.7	176.3	154.99	139.2
Sundry Debtors	115.9	80.5	58.44	40.23
Cash & Bank Balances	408.5	244.74	57.03	18.55
Loans & Advances	85.3	72.33	48.5	26.19
Current Assets, Loans & Advances	805.4	573.87	318.96	224.17
Current Liabilities	66.3	73.5	83.84	103.55
NET CURRENT ASSETS	739.1	500.37	235.12	120.62
<b>Total</b>	<b>1697.36</b>	<b>1370.63</b>	<b>1017.38</b>	<b>797.44</b>

<b>Cash Flow Statement</b>		<b>(Rs.Mn.)</b>			
	<b>FY10 E</b>	<b>FY09 E</b>	<b>FY08 E</b>	<b>FY07 A</b>	
PBT	286.73	343.25	68.00	64.11	
Depreciation	69.00	65.00	58.00	42.86	
Dimminution in value of Fixed Assets	0.00	0.00	0.00	3.01	
Interest Income	1.50	0.95	0.65	0.59	
Rental Income	12.00	0.30	0.28	0.25	
Amortisation of Employee Compensation	0.00	0.00	0.00	4.78	
Interest Expenses	45.00	40.00	35.39	14.58	
	100.50	103.75	92.47	64.39	
Operating Profit before Working Cap Change	387.23	447	160.47	128.5	
Increase (Decrease) in Working Capital	74.97	77.54	76.02	68.82	
Cash generated from operations	312.16	369.46	84.45	59.68	
Direct Tax Paid	60.00	40.00	18.00	4.81	
<b>Net Cash from Operating Activities</b>	<b>252.26</b>	<b>329.46</b>	<b>66.45</b>	<b>54.87</b>	
Cash Flow from Investing Activities :					
Purchase of Fixed Assests (Incl. CWIP)	157.00	153.00	163.44	131.68	
Interest Income	1.50	0.95	0.65	0.59	
Rental Income	12.00	0.30	0.27	0.25	
<b>Net Cash from Investing Activities</b>	<b>143.50</b>	<b>151.75</b>	<b>162.52</b>	<b>130.84</b>	
Cash Flow from Financing Activities :					
Term Loan from Bank	100.00	50.00	169.94	1.14	
Repayment of Long Term Borrowings	0.00	0.00	0.00	89.56	
Equipment Loan	0.00	0.00	0.00	19.78	
Fixed Deposit Refunded	0.00	0.00	0.00	16.00	
Interest Paid	45.00	40.00	35.39	14.58	
<b>Net Cash Flow in Financing Activities</b>	<b>55.00</b>	<b>10.00</b>	<b>134.55</b>	<b>79.90</b>	
Net Increase in Cash & Cash Equivalentents	163.76	187.71	38.48	3.93	
Cash & Cash Equivalentents at the beginning of the year	244.74	57.03	18.55	14.62	
Cash & Cash Equivalentents at the end of the year	408.5	244.74	57.03	18.55	

<b>Financial Ratio</b>		<b>(Rs. Mn.)</b>			
<b>Type</b>	<b>Estimated</b>	<b>Estimated</b>	<b>Estimated</b>	<b>Audited</b>	
<b>Year</b>	<b>2009-10</b>	<b>2008-09</b>	<b>2007-08</b>	<b>2006-07</b>	
Operating Profit Margin/PBDIT (excl. O.I.)	16.78	15.29	10.15	11.88	
PBT Margin (Core Business)	16.78	15.29	10.15	11.88	
PBT Margin (Total Business)	27.69	36.90	10.15	11.88	
NPM (%) ( Core Business)	10.40	9.48	6.29	7.31	
NPM (%) (Total Business)	20.39	28.61	6.29	7.31	
ROE	0.24	0.37	0.09	0.08	
Interest / Sales	0.04	0.04	0.05	0.03	
Tax/PBT	0.26	0.22	0.38	0.38	
Book Value (Rs.)	19.45	15.97	11.00	10.66	
EPS	4.64	5.85	0.93	0.87	
Market Price - (Rs.)	23.45	23.45	23.45	23.45	
Price / Earnings Ratio - (x)	5.05	4.01	25.21	26.95	
Market Cap. (Rs. mill.)	1065.8	1065.8	1065.8	1065.8	
Market Capitalisation to Sales (x)	1.02	1.14	1.59	1.97	
Market Price to Book Value (x)	1.20	1.47	2.13	2.2	
Dividend Yield (%)	10	7.5	0	0	

## Valuation & Recommendation:

- At the current market price of Rs.23.45 the stock trades at a P/BV of 2.13x for FY08E , 1.47x for FY09E and 1.2x for FY10E respectively.
- The stock looks positive on earnings basis. It trades at 25.21x for FY08E , 4.01x for FY09E and 5.05x for FY10E respectively.
- We are positive on the growth prospects of the company. Hence we are initiating coverage with a BUY recommendation on the stock with a target price of Rs.64
- We have derived our target price based on the two stage DCF valuation methodology , with a WACC of 9.06% and terminal growth rate of 4%.

DCF Valuation		
	FCFF (Rs. Mn)	Discounted Value
2008E	38.48	35.28
2009E	187.71	159.07
2010E	163.76	125.89
Total	389.95	320.24

DCF Valuation per share	(Rs. Mn.)
Total FCFF	320.24
Terminal Value	2587.5
Total FCFF	2907.74
No. of shares	45.45
<b>Value per share (Rs)</b>	<b>64</b>

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