

India Capital Goods

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Industrials

25 September 2009

SO WHAT? THE BNP PARIBAS ANGLE

INDUSTRY OUTLOOK: ↓

- Only broker to have visited Chinese and Korean vendors to understand competitive intensity for BHEL and Crompton.

Stock Picks

- We prefer BHEL among stocks under coverage.

Company	BBG code	Rec	Share price (INR)	Target price (INR)	Upside/ (Downside) (%)	Market cap (USD m)	Rec P/E	FY09 (x)	FY10E (x)	FY11E (x)
BHEL	BHEL IN	HOLD	2,242.65	2,220.00	(1.0)	22,872	35.0	24.9	19.3	
ABB	ABB IN	REDUCE	780.30	450.00	(42.3)	3,493	30.2	35.2	27.3	
Thermax	TMX IN	REDUCE	554.85	300.00	(45.9)	1,373	22.8	27.1	23.2	
Crompton Greaves	CRG IN	REDUCE	317.85	189.00	(40.5)	2,451	20.8	20.4	18.4	

Source: BNP Paribas estimates

- Chinese vendors face soft (visas) and hard (no EPC capability) constraints; DEC will source BTG from China.
- Pricing in the HV T&D market under pressure – a clear negative for T&D companies under coverage.
- Regulatory changes could favour domestic manufacturers such as Crompton Greaves, BHEL, and L&T.

Mapping competition: Field trip feedback

We were on the road meeting with Dongfang Electric Corp (DEC), Doosan Heavy Industries (Doosan), Hyosung, and BHEL along with a few investors. We highlight important takeaways (details inside):

Why is BHEL gaining private sector orders?

The Chinese can manufacture and ship BTG equipment to India in 24 months whereas actual commissioning takes 14-16 months (BHEL's start to finish is 44-46 months). Doosan believes it needs 48-50 months for 600+ MW power projects, given infrastructure bottlenecks such as lack of roads and EPC capabilities. Given the dearth of EPC capabilities in India, players such as DEC prefer to supply BTG equipment only. Moreover, some quality issues surrounding Chinese equipment have been partly resolved, but availability of spares and service quality are still concerns. BHEL has lowered BTG prices 8-10%, which helped it gain traction in IPP orders (~10GW in the past few quarters).

High voltage T&D market: Intensifying Competition
Hyosung (Korean vendor), Bouding and TBEA (Chinese vendors) and a few Russian vendors are looking to gain share in the high voltage equipment market. Price competition, led by players such as Hyosung, has driven the 30-40% decline in 765KV transformer prices over the past few years. A Chinese company recently won an order for ten 765KV transformers from PGCIL. While the T&D market should grow at 15-20% over the next several years, pricing power for domestic manufacturers such as ABB, Crompton Greaves and Siemens could be under threat. Our recent channel checks with Siemens' CEO, ABB, Areva and Jyoti Structures also confirm this pricing trend.

Regulatory tailwinds for domestic manufacturers?

We learn that CEA's two new proposals for supercritical units: 1) maximum heat rate of 1,850kcal/hWh and higher steam temperatures at turbine inlet; and 2) future UMPPs requiring to source from domestic cos. could benefit BHEL and L&T. We learnt from Hyosung that PGCIL could introduce a rule reserving 50% of its HV transformer needs for domestic companies. If it materialises, the clear beneficiary will be Crompton Greaves.

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Takeaways from meeting with Li Qi, India representative of DEC

- 1) DEC is supplying ~6-7 GW of BTG equipment in India and is looking to partner with BGR Energy for EPC capabilities. DEC wants to participate in 1-2 year NTPC projects and would look at an Indian JV in 4-5 years.
- 2) While DEC can deliver BTG equipment (600MW+) in 24 months from China, it expects 14 months to be the time required for commissioning the power plant (assuming all things run smoothly). This compares with 44-46 months required by BHEL, a delay of 6-8 months.
- 3) DEC has moved away from turnkey construction (EPC) of power plants to being a BTG supplier only considering the difficulties in handling local vendors and visa delays for Chinese workers.
- 4) Unlike Shanghai Electric which has a patents dispute with Alstom (France), DEC has no such issues while selling boilers in India. The company has a tie-up with Babcock-Hitachi for supercritical boilers (600 and 1,000 MW) and Siemens for certain specific technology for the supercritical boiler.
- 5) The company has no plans to set up manufacturing facilities in India given that it has 33GW capacity in China. However, the company has opened a service centre in West Bengal for providing after sales service.
- 6) DEC believes that turbine failure at Sagardighi and high secondary fuel consumption at Durgapur are initial hiccups/learning curve issues. The company is confident about customizing power projects to suit Indian coal. The coal available in south west China, where DEC is located, is similar to Indian coal. Further, the company has ~40% market share in Indonesia in projects awarded recently and it believes it has capabilities in handling imported coal from Indonesia.
- 7) DEC will not be able to cut manufacturing time of 24 months as certain critical raw material availability also has a bearing on manufacturing time lines.

Takeaways from our meeting with Dong Sung Pak (India Head of Hyosung) and Mohit Batra (Assistant Manager of Power Systems and Industrial Machinery)

- 1) Hyosung is the largest vendor of power T&D equipment in Korea with a 70% market share. The company has developed 765KV transformers in Korea way back in 1992.
- 2) Hyosung has been in India since 2005, and has become active in the high voltage equipment space since 2007. Main customers in India: Powergrid and NTPC. The company's turnover from Indian operations is around \$166mn.
- 3) Strategy for India: aggressive pricing strategy to enter the Indian market. It believes that the 760KV transformer prices have crashed 40% in the last one year. The company will source key raw material from India to manufacture these transformers in Korea to protect its margin.
- 4) The company will focus on HV transformers and GIS for the Indian market. According to Hyosung, total 765 KV transformers that will be ordered in FY10 would be around 100. The company believes that the GIS market would see strong growth and hence it will focus on profitable SEBs.
- 5) According to Hyosung, there was not too much of price difference between Crompton Greaves and Hyosung (~4% only) in the recent order for 765KV transformers from PGCIL.
- 6) This sector is seeing intensifying competition - Chinese companies such as Bouding and TBEA and Korean manufacturers (such as Hyundai), and the Russians are becoming active in India.
- 7) If domestic manufacturing rule applies (where 50% of demand has to be reserved for domestic companies) to T&D equipment also, then Crompton Greaves will be a clear beneficiary.

Takeaways from meeting with Sandeep Rajan (Business Development Executive) Doosan Heavy

- 1) Doosan Heavy is currently delivering equipment to Mundra UMPP for Tata Power and NTPC Sipat.
- 2) Delivery timelines: 48 months for 660 MW and 50 months for 800 MW projects.
- 3) Doosan will not likely focus on IPPs and other smaller power projects. It would stick to projects with >660MW size. It prefers to be involved with high-quality developers with strong financials (such as NTPC, Tatas) and is looking to supply equipment for UMPP type projects.
- 4) It is not a price warrior and has no plans for setting up manufacturing base in India, given the fact that it is expanding in Vietnam (3GW/year). Key strength is its experience of setting up similar power projects in other parts of the world.
- 5) It has so far focused on boiler orders only as its turbines operate on 60Hz (versus 50Hz in India). It can also supply turbine generator sets given that it has customized its TG sets for the 50Hz cycle.
- 6) It has no boiler technology license issues – is one of the four OEMs that have supercritical boiler technology (they are: Alstom, Forster-Wheeler, Babcock-Wilcox, and Doosan-Babcock).
- 7) Other plans for India include supplying equipment for water treatment plants, including de-salination.

Takeaways from meeting with Amitabh Mathur (Additional General Manager and SA to CMD)

- 1) Does not believe that BHEL's earnings would accelerate significantly in FY11, driven by capacity addition of around 5GW by March 2010. This view is underpinned by several infrastructure constraints such as lack of roads, delays in procuring BOP equipment etc that would delay projects.
- 2) BHEL has lowered pricing by around 8-10% in subcritical orders to gain traction from private sector.
- 3) It expects a few more private sector orders from clients such as Sterlite and Videocon.
- 4) It believes that for power projects beyond 500 MW in size, lack of infrastructure is becoming a critical constraint. For e.g., he highlighted how a bridge near Pipavav port collapsed as the company was transporting a large turbine.
- 5) Expects power projects with a total capacity of 54,000 MW to be commissioned in XI plan.
- 6) Believes that BHEL could be a significant beneficiary from CEA's proposal to source equipment from domestic companies for UMPP type projects. Moreover, CEA's recent modifications in parameters such as heat rate and inlet temperature for the turbine could be disadvantageous to Chinese manufacturers.
- 7) BHEL is targeting to commission around 6,000-7,000 MW of thermal plants and 412 MW of hydro power plants in FY10.

FINANCIAL STATEMENTS

Bharat Heavy Electricals

Profit and Loss (INR m)					
Year Ending March	2008A	2009A	2010E	2011E	2012E
Revenue	193,655	262,342	333,354	424,469	515,647
Cost of sales ex depreciation	(106,622)	(159,689)	(196,077)	(249,588)	(294,459)
Gross profit ex depreciation	87,032	102,653	137,277	174,881	221,189
Other operating income	-	-	-	-	-
Operating costs	(53,365)	(64,639)	(78,078)	(93,614)	(113,541)
Operating EBITDA	33,668	38,014	59,199	81,267	107,648
Depreciation	(2,972)	(3,343)	(5,244)	(7,041)	(10,792)
Goodwill amortisation	-	-	-	-	-
Operating EBIT	30,696	34,671	53,954	74,226	96,856
Net financing costs	(354)	(307)	(252)	(314)	(376)
Associates	-	-	-	-	-
Recurring non operating income	13,962	14,124	14,124	13,418	13,418
Non recurring items	-	-	-	-	-
Profit before tax	44,304	48,489	67,826	87,330	109,897
Tax	(15,711)	(17,104)	(23,705)	(30,508)	(39,711)
Profit after tax	28,593	31,384	44,122	56,821	70,187
Minority interests	-	-	-	-	-
Preferred dividends	-	-	-	-	-
Other items	-	-	-	-	-
Reported net profit	28,593	31,384	44,122	56,821	70,187
Non recurring items & goodwill (net)	-	-	-	-	-
Recurring net profit	28,593	31,384	44,122	56,821	70,187
Per share (INR)					
Recurring EPS *	58.41	64.11	90.13	116.08	143.38
Reported EPS	58.41	64.11	90.13	116.08	143.38
DPS	17.55	18.59	26.14	29.02	35.84
Growth					
Revenue (%)	12.3	35.5	27.1	27.3	21.5
Operating EBITDA (%)	4.3	12.9	55.7	37.3	32.5
Operating EBIT (%)	3.9	13.0	55.6	37.6	30.5
Recurring EPS (%)	18.5	9.8	40.6	28.8	23.5
Reported EPS (%)	18.5	9.8	40.6	28.8	23.5
Operating performance					
Gross margin inc depreciation (%)	43.4	37.9	39.6	39.5	40.8
Operating EBITDA margin (%)	17.4	14.5	17.8	19.1	20.9
Operating EBIT margin (%)	15.9	13.2	16.2	17.5	18.8
Net margin (%)	14.8	12.0	13.2	13.4	13.6
Effective tax rate (%)	35.5	35.3	34.9	34.9	36.1
Dividend payout on recurring profit (%)	30.0	29.0	29.0	25.0	25.0
Interest cover (x)	126.1	158.9	270.1	278.9	293.0
Inventory days	170.4	153.1	156.3	151.8	147.0
Debtor days	204.2	188.3	182.6	168.5	159.1
Creditor days	136.3	113.1	115.9	118.6	122.2
Operating ROIC (%)	45.6	31.9	28.7	27.0	26.5
Operating ROIC - WACC (%)	27.3	13.6	10.4	8.7	8.2
ROIC (%)	52.9	37.9	32.7	29.7	28.6
ROIC - WACC (%)	34.6	19.6	14.5	11.4	10.3
ROE (%)	29.2	26.4	30.3	31.1	30.5
ROA (%)	10.7	9.8	12.2	13.6	14.6

Healthy sales CAGR of 27.3% for FY09-11 as execution pace picks up

EBITDA margin to increase by 542bp in FY09-11, driven by higher capacity utilisation and lower wage costs

* Pre exceptional, pre-goodwill and fully diluted

Revenue By Division (INR m)					
	2008A	2009A	2010E	2011E	2012E
Power	159,188	213,444	277,069	359,161	439,347
Industry	60,107	72,495	84,023	102,334	121,238
Inter segmental revenue	(25,640)	(23,597)	(27,737)	(37,026)	(44,938)

Sources: Bharat Heavy Electricals; BNP Paribas estimates

Bharat Heavy Electricals

Cash Flow (INR m)					
Year Ending March	2008A	2009A	2010E	2011E	2012E
Recurring net profit	28,593	31,384	44,122	56,821	70,187
Depreciation	2,972	3,343	5,244	7,041	10,792
Associates & minorities	-	-	-	-	-
Other non-cash items	(15,425)	305	252	314	376
Recurring cash flow	16,141	35,032	49,618	64,177	81,355
Change in working capital	18,638	(39,939)	(31,336)	(29,113)	(23,039)
Capex - maintenance	-	-	-	-	-
Capex - new investment	(7,030)	(21,571)	(21,644)	(46,692)	(41,252)
Free cash flow to equity	27,749	(26,478)	(3,362)	(11,628)	17,065
Net acquisitions & disposals	53	2	-	-	-
Dividends paid	(8,589)	(9,101)	(12,795)	(14,205)	(17,547)
Non recurring cash flows	-	-	-	-	-
Net cash flow	19,214	(35,577)	(16,157)	(25,833)	(482)
Equity finance	-	-	-	-	-
Debt finance	6,557	(307)	(252)	(314)	(376)
Movement in cash	25,771	(35,885)	(16,409)	(26,147)	(858)

BHEL plans to expand its capacity by 50% to 15GW from 10GW

Per share (INR)

Recurring cash flow per share	32.97	71.56	101.36	131.10	166.19
FCF to equity per share	56.69	(54.09)	(6.87)	(23.75)	34.86

Balance Sheet (INR m)

Year Ending March	2008A	2009A	2010E	2011E	2012E
Working capital assets	193,187	243,574	290,058	341,648	377,249
Working capital liabilities	(165,765)	(176,212)	(191,360)	(213,838)	(226,400)
Net working capital	27,423	67,361	98,697	127,810	150,849
Tangible fixed assets	16,393	34,621	51,021	90,671	121,131
Operating invested capital	43,815	101,983	149,718	218,482	271,980
Goodwill	-	-	-	-	-
Other intangible assets	-	-	-	-	-
Investments	-	-	-	-	-
Other assets	13,462	13,462	13,462	13,462	13,462
Invested capital	57,278	115,445	163,181	231,944	285,442
Cash & equivalents	(83,860)	(47,976)	(31,566)	(5,419)	(4,561)
Short term debt	-	-	-	-	-
Long term debt *	952	952	952	952	952
Net debt	(82,908)	(47,024)	(30,615)	(4,467)	(3,609)
Deferred tax	-	-	-	-	-
Other liabilities	32,444	32,444	32,444	32,444	32,444
Total equity	107,742	130,025	161,351	203,967	256,607
Minority interests	-	-	-	-	-
Invested capital	57,278	115,445	163,181	231,944	285,442

* Includes convertibles and preferred stock which is being treated as debt

Per share (INR)

Book value per share	220.10	265.62	329.61	416.67	524.20
Tangible book value per share	220.10	265.62	329.61	416.67	524.20

Financial strength

Net debt/equity (%)	(77.0)	(36.2)	(19.0)	(2.2)	(1.4)
Net debt/total assets (%)	(27.0)	(13.8)	(7.9)	(1.0)	(0.7)
Current ratio (x)	1.7	1.7	1.7	1.6	1.7
CF interest cover (x)	99.2	(15.0)	73.5	112.6	156.0

Valuation	2008A	2009A	2010E	2011E	2012E
Recurring P/E (x) *	38.4	35.0	24.9	19.3	15.6
Recurring P/E @ target price (x) *	38.0	34.6	24.6	19.1	15.5
Reported P/E (x)	38.4	35.0	24.9	19.3	15.6
Dividend yield (%)	0.8	0.8	1.2	1.3	1.6
P/CF (x)	68.0	31.3	22.1	17.1	13.5
P/FCF (x)	39.6	neg	neg	neg	64.3
Price/book (x)	10.2	8.4	6.8	5.4	4.3
Price/tangible book (x)	10.2	8.4	6.8	5.4	4.3
EV/EBITDA (x) **	21.6	19.8	14.4	11.4	9.0
EV/EBITDA @ target price (x) **	21.3	19.6	14.3	11.3	8.9
EV/invested capital (x)	17.7	9.1	6.5	4.7	3.8

* Pre exceptional, pre-goodwill and fully diluted

** EBITDA includes associate income and recurring non-operating income

Sources: Bharat Heavy Electricals; BNP Paribas estimates

ABB India

Profit and Loss (INR m)					
Year Ending December	2007A	2008A	2009E	2010E	2011E
Revenue	59,303	68,370	69,756	82,246	98,016
Cost of sales ex depreciation	(42,920)	(49,504)	(49,462)	(59,950)	(71,218)
Gross profit ex depreciation	16,383	18,866	20,294	22,296	26,799
Other operating income	-	-	-	-	-
Operating costs	(9,088)	(11,124)	(13,212)	(13,280)	(15,899)
Operating EBITDA	7,295	7,742	7,083	9,016	10,900
Depreciation	(324)	(367)	(458)	(545)	(600)
Goodwill amortisation	-	-	-	-	-
Operating EBIT	6,971	7,375	6,624	8,470	10,300
Net financing costs	(117)	(347)	(326)	(326)	(326)
Associates	-	-	-	-	-
Recurring non operating income	710	1,304	921	1,150	1,059
Non recurring items	-	-	-	-	-
Profit before tax	7,565	8,332	7,220	9,295	11,034
Tax	(2,648)	(2,858)	(2,527)	(3,248)	(3,857)
Profit after tax	4,917	5,474	4,692	6,047	7,177
Minority interests	-	-	-	-	-
Preferred dividends	-	-	-	-	-
Other items	-	-	-	-	-
Reported net profit	4,917	5,474	4,692	6,047	7,177
Non recurring items & goodwill (net)	-	-	-	-	-
Recurring net profit	4,917	5,474	4,692	6,047	7,177
Per share (INR)					
Recurring EPS *	23.21	25.84	22.15	28.54	33.87
Reported EPS	23.21	25.84	22.15	28.54	33.87
DPS	2.33	2.57	2.44	3.14	3.39
Growth					
Revenue (%)	38.8	15.3	2.0	17.9	19.2
Operating EBITDA (%)	53.0	6.1	(8.5)	27.3	20.9
Operating EBIT (%)	54.8	5.8	(10.2)	27.9	21.6
Recurring EPS (%)	44.5	11.3	(14.3)	28.9	18.7
Reported EPS (%)	44.5	11.3	(14.3)	28.9	18.7
Operating performance					
Gross margin inc depreciation (%)	27.1	27.1	28.4	26.4	26.7
Operating EBITDA margin (%)	12.3	11.3	10.2	11.0	11.1
Operating EBIT margin (%)	11.8	10.8	9.5	10.3	10.5
Net margin (%)	8.3	8.0	6.7	7.4	7.3
Effective tax rate (%)	35.0	34.3	35.0	34.9	35.0
Dividend payout on recurring profit (%)	10.1	9.9	11.0	11.0	10.0
Interest cover (x)	65.6	25.0	23.2	29.6	34.9
Inventory days	35.9	41.7	50.9	48.1	46.1
Debtor days	122.9	144.1	158.0	146.5	143.0
Creditor days	108.1	115.1	117.7	100.1	96.5
Operating ROIC (%)	67.4	41.2	25.5	26.1	25.4
Operating ROIC - WACC (%)	49.7	23.5	7.8	8.3	7.7
ROIC (%)	61.8	42.0	26.1	27.1	26.1
ROIC - WACC (%)	44.1	24.3	8.4	9.4	8.4
ROE (%)	34.8	29.2	20.2	21.6	21.1
ROA (%)	12.7	11.3	8.8	10.2	10.6
* Pre exceptional, pre-goodwill and fully diluted					
Revenue By Division (INR m)					
	2007A	2008A	2009E	2010E	2011E
Power Systems	22,514	23,054	22,844	26,885	32,568
Power Products	16,321	20,492	21,647	25,376	30,385
Process Automation	10,666	13,334	11,548	12,495	14,455
Automation Products	13,332	17,376	16,564	17,892	20,778
Others	344	810	633	748	889
Add: Unallocated	363	403	142	-	-
Less: Inter segment revenues	(4,237)	(7,097)	(3,623)	(1,150)	(1,059)

Top line to expand at 12.8% CAGR in 2008-11, much lower than the historical CAGR of 32.1% in 2005-08

We expect EBITDA margins to remain flat in 2009 and 2011

ROE to taper off from highs of 35% to 21% by 2011

Sources: ABB India; BNP Paribas estimates

ABB India

Cash Flow (INR m)					
Year Ending December	2007A	2008A	2009E	2010E	2011E
Recurring net profit	4,917	5,474	4,692	6,047	7,177
Depreciation	324	367	458	545	600
Associates & minorities	-	-	-	-	-
Other non-cash items	(320)	840	326	326	326
Recurring cash flow	4,920	6,681	5,476	6,918	8,102
Change in working capital	(2,245)	(6,484)	(2,033)	(4,294)	(4,817)
Capex - maintenance	-	-	-	-	-
Capex - new investment	(1,489)	(2,721)	(1,686)	(1,777)	(1,113)
Free cash flow to equity	1,186	(2,524)	1,756	847	2,172
Net acquisitions & disposals	-	-	-	-	-
Dividends paid	(495)	(544)	(516)	(665)	(718)
Non recurring cash flows	350	474	-	-	-
Net cash flow	1,042	(2,594)	1,240	182	1,454
Equity finance	-	-	-	-	-
Debt finance	(78)	(352)	(326)	(326)	(326)
Movement in cash	964	(2,946)	915	(144)	1,129

Strong free cash flow generation of INR2.2b by 2011

Per share (INR)					
Recurring cash flow per share	23.22	31.53	25.85	32.65	38.24
FCF to equity per share	5.60	(11.91)	8.29	4.00	10.25

Balance Sheet (INR m)					
Year Ending December	2007A	2008A	2009E	2010E	2011E
Working capital assets	34,678	43,516	44,581	50,967	58,648
Working capital liabilities	(29,993)	(33,215)	(32,247)	(34,339)	(37,202)
Net working capital	4,685	10,301	12,334	16,628	21,446
Tangible fixed assets	3,519	5,458	6,686	7,918	8,431
Operating invested capital	8,205	15,759	19,020	24,546	29,876
Goodwill	-	-	-	-	-
Other intangible assets	-	-	-	-	-
Investments	-	-	-	-	-
Other assets	1,764	1,986	1,986	1,986	1,986
Invested capital	9,969	17,745	21,007	26,532	31,863
Cash & equivalents	(6,429)	(3,482)	(4,397)	(4,253)	(5,382)
Short term debt	-	-	-	-	-
Long term debt *	6	0	0	0	0
Net debt	(6,423)	(3,482)	(4,397)	(4,253)	(5,382)
Deferred tax	128	38	38	38	38
Other liabilities	-	-	-	-	-
Total equity	16,263	21,190	25,366	30,747	37,206
Minority interests	-	-	-	-	-
Invested capital	9,969	17,745	21,007	26,532	31,863

* Includes convertibles and preferred stock which is being treated as debt

Per share (INR)					
Book value per share	76.74	99.98	119.72	145.12	175.61
Tangible book value per share	76.74	99.98	119.72	145.12	175.61

Financial strength					
Net debt/equity (%)	(39.5)	(16.4)	(17.3)	(13.8)	(14.5)
Net debt/total assets (%)	(13.8)	(6.4)	(7.6)	(6.5)	(7.2)
Current ratio (x)	1.4	1.4	1.5	1.6	1.7
CF interest cover (x)	23.9	1.6	11.6	9.1	11.1

Valuation					
	2007A	2008A	2009E	2010E	2011E
Recurring P/E (x) *	33.6	30.2	35.2	27.3	23.0
Recurring P/E @ target price (x) *	19.4	17.4	20.3	15.8	13.3
Reported P/E (x)	33.6	30.2	35.2	27.3	23.0
Dividend yield (%)	0.3	0.3	0.3	0.4	0.4
P/CF (x)	33.6	24.7	30.2	23.9	20.4
P/FCF (x)	139.4	neg	94.1	195.2	76.1
Price/book (x)	10.2	7.8	6.5	5.4	4.4
Price/tangible book (x)	10.2	7.8	6.5	5.4	4.4
EV/EBITDA (x) **	19.9	17.7	20.2	15.8	13.4
EV/EBITDA @ target price (x) **	11.2	10.0	11.4	9.0	7.6
EV/invested capital (x)	15.9	9.1	7.7	6.1	5.0

* Pre exceptional, pre-goodwill and fully diluted

** EBITDA includes associate income and recurring non-operating income

Sources: ABB India; BNP Paribas estimates

Thermax Ltd

Profit and Loss (INR m)					
Year Ending March	2008A	2009A	2010E	2011E	2012E
Revenue	34,815	34,603	30,516	34,854	39,316
Cost of sales ex depreciation	(22,202)	(20,802)	(19,262)	(22,097)	(24,926)
Gross profit ex depreciation	12,613	13,801	11,254	12,757	14,390
Other operating income	-	-	-	-	-
Operating costs	(8,323)	(9,559)	(7,572)	(8,396)	(9,466)
Operating EBITDA	4,290	4,242	3,682	4,362	4,923
Depreciation	(232)	(351)	(405)	(419)	(433)
Goodwill amortisation	-	-	-	-	-
Operating EBIT	4,058	3,891	3,277	3,943	4,491
Net financing costs	(17)	(38)	(31)	(33)	(35)
Associates	-	-	-	-	-
Recurring non operating income	439	404	418	466	525
Non recurring items	21	(14)	-	-	-
Profit before tax	4,502	4,243	3,664	4,375	4,981
Tax	(1,571)	(1,357)	(1,223)	(1,531)	(1,748)
Profit after tax	2,931	2,886	2,441	2,844	3,233
Minority interests	-	-	-	-	-
Preferred dividends	-	-	-	-	-
Other items	-	-	-	-	-
Reported net profit	2,931	2,886	2,441	2,844	3,233
Non recurring items & goodwill (net)	(21)	14	(0)	(0)	(0)
Recurring net profit	2,910	2,899	2,441	2,844	3,233
Per share (INR)					
Recurring EPS *	24.42	24.33	20.49	23.87	27.13
Reported EPS	24.60	24.22	20.49	23.87	27.13
DPS	3.04	9.35	2.56	2.98	3.39
Growth					
Revenue (%)	49.6	(0.6)	(11.8)	14.2	12.8
Operating EBITDA (%)	42.4	(1.1)	(13.2)	18.5	12.9
Operating EBIT (%)	44.0	(4.1)	(15.8)	20.3	13.9
Recurring EPS (%)	37.5	(0.4)	(15.8)	16.5	13.7
Reported EPS (%)	51.3	(1.5)	(15.4)	16.5	13.7
Operating performance					
Gross margin inc depreciation (%)	35.6	38.9	35.6	35.4	35.5
Operating EBITDA margin (%)	12.3	12.3	12.1	12.5	12.5
Operating EBIT margin (%)	11.7	11.2	10.7	11.3	11.4
Net margin (%)	8.4	8.4	8.0	8.2	8.2
Effective tax rate (%)	34.9	32.0	33.4	35.0	35.1
Dividend payout on recurring profit (%)	12.4	38.4	12.5	12.5	12.5
Interest cover (x)	272.6	112.7	119.3	131.8	142.8
Inventory days	34.6	43.0	61.1	66.1	67.9
Debtor days	48.8	58.1	64.6	57.0	57.4
Creditor days	63.0	76.8	77.8	68.6	65.4
Operating ROIC (%)	162.1	53.5	29.0	29.8	32.4
Operating ROIC - WACC (%)	141.5	33.0	8.4	9.2	11.9
ROIC (%)	41.0	34.3	27.4	28.6	31.3
ROIC - WACC (%)	20.5	13.7	6.9	8.1	10.8
ROE (%)	43.3	33.2	22.2	21.4	20.3
ROA (%)	15.4	13.3	10.0	10.6	10.6
* Pre exceptional, pre-goodwill and fully diluted					
Revenue By Division (INR m)					
	2008A	2009A	2010E	2011E	2012E
Energy	28,796	26,969	23,987	27,315	30,607
Environment	6,696	8,274	6,529	7,539	8,708
Others	1	2	-	-	-
Intersegment	(678)	(642)	-	-	-

Top line to decline by 11.8% in FY10 due to lower order intake and delay in execution of current order backlog

EBITDA margins to remain flat as ongoing pricing pressures offset the impact of declining commodity prices

Sources: Thermax Ltd; BNP Paribas estimates

Thermax Ltd

Cash Flow (INR m)					
Year Ending March	2008A	2009A	2010E	2011E	2012E
Recurring net profit	2,910	2,899	2,441	2,844	3,233
Depreciation	232	351	405	419	433
Associates & minorities	-	-	-	-	-
Other non-cash items	(180)	(241)	-	-	-
Recurring cash flow	2,962	3,009	2,846	3,263	3,665
Change in working capital	(1,531)	(1,404)	(1,545)	(849)	(334)
Capex - maintenance	-	-	-	-	-
Capex - new investment	(1,918)	(1,915)	(750)	(250)	(250)
Free cash flow to equity	(487)	(309)	551	2,164	3,081
Net acquisitions & disposals	(40)	-	-	-	-
Dividends paid	(362)	(1,114)	(305)	(355)	(404)
Non recurring cash flows	542	4,543	-	-	-
Net cash flow	(347)	3,120	246	1,808	2,677
Equity finance	0	-	-	-	-
Debt finance	(45)	(4)	4	2	2
Movement in cash	(392)	3,116	250	1,810	2,679
Per share (INR)					
Recurring cash flow per share	24.86	25.26	23.89	27.38	30.76
FCF to equity per share	(4.08)	(2.60)	4.63	18.16	25.86
Balance Sheet (INR m)					
Year Ending March	2008A	2009A	2010E	2011E	2012E
Working capital assets	10,611	13,620	14,551	16,202	17,727
Working capital liabilities	(10,990)	(12,069)	(11,455)	(12,257)	(13,447)
Net working capital	(379)	1,551	3,096	3,945	4,279
Tangible fixed assets	3,485	5,088	5,433	5,264	5,081
Operating invested capital	3,106	6,639	8,529	9,209	9,361
Goodwill	-	-	-	-	-
Other intangible assets	-	-	-	-	-
Investments	5,601	1,443	1,443	1,443	1,443
Other assets	-	-	-	-	-
Invested capital	8,708	8,082	9,972	10,652	10,804
Cash & equivalents	(580)	(3,696)	(3,946)	(5,757)	(8,436)
Short term debt	-	-	-	-	-
Long term debt *	-	41	45	47	49
Net debt	(580)	(3,655)	(3,901)	(5,710)	(8,386)
Deferred tax	134	160	160	160	160
Other liabilities	1,598	1,654	1,654	1,654	1,654
Total equity	7,556	9,923	12,059	14,548	17,376
Minority interests	-	-	-	-	-
Invested capital	8,708	8,082	9,972	10,652	10,804
<i>* Includes convertibles and preferred stock which is being treated as debt</i>					
Per share (INR)					
Book value per share	63.41	83.28	101.21	122.09	145.83
Tangible book value per share	63.41	83.28	101.21	122.09	145.83
Financial strength					
Net debt/equity (%)	(7.7)	(36.8)	(32.4)	(39.2)	(48.3)
Net debt/total assets (%)	(2.9)	(15.3)	(15.4)	(19.9)	(25.7)
Current ratio (x)	1.0	1.4	1.6	1.8	1.9
CF interest cover (x)	87.7	43.1	43.0	73.1	95.8
Valuation					
2008A	2009A	2010E	2011E	2012E	
Recurring P/E (x) *	22.7	22.8	27.1	23.2	20.5
Recurring P/E @ target price (x) *	12.3	12.3	14.6	12.6	11.1
Reported P/E (x)	22.6	22.9	27.1	23.2	20.5
Dividend yield (%)	0.5	1.7	0.5	0.5	0.6
P/CF (x)	22.3	22.0	23.2	20.3	18.0
P/FCF (x)	neg	neg	119.9	30.6	21.5
Price/book (x)	8.8	6.7	5.5	4.5	3.8
Price/tangible book (x)	8.8	6.7	5.5	4.5	3.8
EV/EBITDA (x) **	13.8	13.8	15.2	12.7	10.8
EV/EBITDA @ target price (x) **	7.4	7.2	7.8	6.4	5.3
EV/invested capital (x)	7.5	7.7	6.2	5.7	5.3
<i>* Pre exceptional, pre-goodwill and fully diluted</i>					
<i>** EBITDA includes associate income and recurring non-operating income</i>					

Sources: Thermax Ltd; BNP Paribas estimates

Crompton Greaves

Profit and Loss (INR m)					
Year Ending March	2008A	2009A	2010E	2011E	2012E
Revenue	68,323	87,373	90,222	99,409	112,670
Cost of sales ex depreciation	(45,646)	(56,938)	(56,915)	(63,008)	(71,414)
Gross profit ex depreciation	22,677	30,435	33,307	36,400	41,257
Other operating income	-	-	-	-	-
Operating costs	(15,218)	(20,479)	(23,148)	(25,141)	(28,498)
Operating EBITDA	7,459	9,956	10,158	11,259	12,758
Depreciation	(1,263)	(1,216)	(1,666)	(1,651)	(1,825)
Goodwill amortisation	-	-	-	-	-
Operating EBIT	6,197	8,740	8,492	9,608	10,933
Net financing costs	(781)	(808)	(625)	(601)	(559)
Associates	-	-	-	-	-
Recurring non operating income	737	740	707	645	730
Non recurring items	-	-	-	-	-
Profit before tax	6,152	8,672	8,574	9,652	11,104
Tax	(2,054)	(3,047)	(2,828)	(3,282)	(3,775)
Profit after tax	4,098	5,625	5,746	6,370	7,329
Minority interests	(31)	(26)	(27)	(30)	(34)
Preferred dividends	-	-	-	-	-
Other items	-	-	-	-	-
Reported net profit	4,067	5,599	5,719	6,340	7,295
Non recurring items & goodwill (net)	(0)	(0)	(0)	(0)	(0)
Recurring net profit	4,067	5,599	5,719	6,340	7,295
Per share (INR)					
Recurring EPS *	11.10	15.27	15.60	17.29	19.90
Reported EPS	11.10	15.27	15.60	17.29	19.90
DPS	1.69	1.89	2.34	2.59	2.98
Growth					
Revenue (%)	21.2	27.9	3.3	10.2	13.3
Operating EBITDA (%)	54.5	33.5	2.0	10.8	13.3
Operating EBIT (%)	60.0	41.0	(2.8)	13.1	13.8
Recurring EPS (%)	44.4	37.6	2.1	10.9	15.1
Reported EPS (%)	39.8	37.6	2.1	10.9	15.1
Operating performance					
Gross margin inc depreciation (%)	31.3	33.4	35.1	35.0	35.0
Operating EBITDA margin (%)	10.9	11.4	11.3	11.3	11.3
Operating EBIT margin (%)	9.1	10.0	9.4	9.7	9.7
Net margin (%)	6.0	6.4	6.3	6.4	6.5
Effective tax rate (%)	33.4	35.1	33.0	34.0	34.0
Dividend payout on recurring profit (%)	15.3	12.4	15.0	15.0	15.0
Interest cover (x)	8.9	11.7	14.7	17.1	20.9
Inventory days	79.2	69.3	72.6	71.4	70.6
Debtor days	83.9	78.9	84.1	81.1	80.0
Creditor days	95.5	90.1	98.4	90.4	89.4
Operating ROIC (%)	20.8	25.4	22.7	23.7	25.8
Operating ROIC - WACC (%)	2.2	6.8	4.1	5.1	7.2
ROIC (%)	21.8	25.5	22.6	23.4	25.6
ROIC - WACC (%)	3.3	6.9	4.1	4.8	7.0
ROE (%)	35.8	35.7	27.6	24.5	23.0
ROA (%)	10.3	11.7	10.3	10.3	10.5
* Pre exceptional, pre-goodwill and fully diluted					
Revenue By Division (INR m)					
	2008A	2009A	2010E	2011E	2012E
Power Systems	46,668	61,745	65,384	71,439	80,773
Consumer Products	11,178	13,219	14,982	16,985	19,259
Industrial Systems	9,649	11,498	12,245	14,137	16,323
Others/Digital Group	1,089	1,223	1,295	1,318	1,341
Intersegmental and Excise	(260)	(312)	(3,683)	(4,470)	(5,025)

Top line to expand at 4% CAGR in FY09-11E compared with historic CAGR of 28.7% in FY06-08

EBITDA margin to remain almost flat in the long run

ROE to taper off to 24.0% in FY11 from high of 35.8% in FY08

Sources: Crompton Greaves; BNP Paribas estimates

Crompton Greaves

Cash Flow (INR m)					
Year Ending March	2008A	2009A	2010E	2011E	2012E
Recurring net profit	4,067	5,599	5,719	6,340	7,295
Depreciation	1,263	1,216	1,666	1,651	1,825
Associates & minorities	31	26	27	30	34
Other non-cash items	1,003	2,544	-	-	-
Recurring cash flow	6,364	9,385	7,412	8,021	9,154
Change in working capital	(844)	59	(2,268)	(2,432)	(1,329)
Capex - maintenance	-	-	-	-	-
Capex - new investment	(2,583)	(2,012)	(1,900)	(994)	(1,127)
Free cash flow to equity	2,937	7,432	3,244	4,595	6,699
Net acquisitions & disposals	15,873	19,597	(27)	(30)	(34)
Dividends paid	(620)	(695)	(858)	(951)	(1,094)
Non recurring cash flows	(16,491)	(20,800)	-	-	-
Net cash flow	1,698	5,534	2,359	3,614	5,571
Equity finance	-	-	-	-	-
Debt finance	(1,668)	(2,322)	82	(508)	(473)
Movement in cash	30	3,212	2,441	3,105	5,098
Per share (INR)					
Recurring cash flow per share	17.36	25.60	20.22	21.88	24.97
FCF to equity per share	8.01	20.27	8.85	12.53	18.27
Balance Sheet (INR m)					
Year Ending March	2008A	2009A	2010E	2011E	2012E
Working capital assets	31,572	36,043	38,070	41,921	46,498
Working capital liabilities	(21,715)	(26,022)	(25,781)	(27,199)	(30,448)
Net working capital	9,857	10,021	12,289	14,721	16,050
Tangible fixed assets	12,444	13,785	14,019	13,363	12,664
Operating invested capital	22,301	23,807	26,309	28,084	28,714
Goodwill	-	-	-	-	-
Other intangible assets	-	-	-	-	-
Investments	934	1,672	1,672	1,672	1,672
Other assets	588	482	482	482	482
Invested capital	23,823	25,961	28,463	30,238	30,869
Cash & equivalents	(2,445)	(5,656)	(8,098)	(11,203)	(16,301)
Short term debt	-	-	-	-	-
Long term debt *	8,420	7,182	7,264	6,756	6,283
Net debt	5,975	1,526	(833)	(4,447)	(10,018)
Deferred tax	-	-	-	-	-
Other liabilities	4,708	5,986	5,986	5,986	5,986
Total equity	13,018	18,311	23,172	28,561	34,762
Minority interests	123	139	139	139	139
Invested capital	23,823	25,961	28,463	30,238	30,869
<i>* Includes convertibles and preferred stock which is being treated as debt</i>					
Per share (INR)					
Book value per share	35.51	49.95	63.21	77.91	94.82
Tangible book value per share	35.51	49.95	63.21	77.91	94.82
Financial strength					
Net debt/equity (%)	45.5	8.3	(3.6)	(15.5)	(28.7)
Net debt/total assets (%)	12.5	2.6	(1.3)	(6.5)	(12.9)
Current ratio (x)	1.6	1.6	1.8	2.0	2.1
CF interest cover (x)	8.1	12.7	9.2	10.3	15.0
Valuation					
2008A	2009A	2010E	2011E	2012E	
Recurring P/E (x) *	28.6	20.8	20.4	18.4	16.0
Recurring P/E @ target price (x) *	17.0	12.4	12.1	10.9	9.5
Reported P/E (x)	28.6	20.8	20.4	18.4	16.0
Dividend yield (%)	0.5	0.6	0.7	0.8	0.9
P/CF (x)	18.3	12.4	15.7	14.5	12.7
P/FCF (x)	39.7	15.7	35.9	25.4	17.4
Price/book (x)	9.0	6.4	5.0	4.1	3.4
Price/tangible book (x)	9.0	6.4	5.0	4.1	3.4
EV/EBITDA (x) **	15.0	11.3	10.8	9.6	8.1
EV/EBITDA @ target price (x) **	9.2	6.8	6.4	5.6	4.6
EV/invested capital (x)	5.1	4.6	4.1	3.7	3.5
<i>* Pre exceptional, pre-goodwill and fully diluted</i>					
<i>** EBITDA includes associate income and recurring non-operating income</i>					

Sources: Crompton Greaves; BNP Paribas estimates

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Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

*In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

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