Industrials Machinery Equity - India



Thermax India (TMX)

Initiate UW: A late-cycle play

- ▶ With c80% exposure to mid- to late-cycle capex, we believe orders are likely to fall by c16% in FY12 and c6% in FY13
- Weak orders should drive a c10% sales decline in FY13 and a c130bp margin decline during FY12-13; EPS should bottom in FY13, in our view
- ▶ Initiate coverage at UW and an EVA-driven TP of INR400; we are c21% below consensus on FY13 EPS and expect earnings cuts to drive stock lower

As a late-cycle play, Thermax is unlikely to benefit from the nascent economic recovery. Engineering and construction firm Thermax derives c80% of its orders from mid- to latecycle capex by sectors like metals, cement, refineries and power. As such, we do not see the company benefiting yet from India's tentative economic recovery, which remains fragile and barely past the bottom of the cycle. We discuss several leading indicators in this report and highlight that industrial production growth picks up only after 3-4 quarters of a rate cut, while gross capital formation growth picks up only when the rate cycle has bottomed.

Capex analysis indicates a weak order outlook. Captive power addition, a key demand driver for Thermax, is likely to closely track industrial capex, because other drivers, such as high merchant rates and cost advantages, are fading. We discuss capex outlook in four key sectors (e.g., metals, cement, refineries and power) and estimate that capex in these sectors on average will fall c15% in FY13 and c9% in FY14. Assuming a 12-month lead time in ordering, we forecast Thermax order inflow to decline by c16% in FY12 and c6% in FY13.

Earnings still to bottom; consensus appears bullish: Due to weak order inflow in FY12-13, we expect revenue to fall c10% in FY13 and EBITDA margin to fall c130bp in FY12-13. We note that consensus appears bullish, as it is factoring in only a 2% sales decline in FY13 and a c40bp margin decline in FY12-13, even when margin has already fallen by c90bp in 9M FY12. While margin may benefit somewhat from a potential easing in steel prices going into FY13, the decline in volumes and pricing pressure is likely to prevent its earnings from improving. Hence, we remain c12%/21% below consensus on FY12/13 EPS.

Initiate UW with a TP of INR400; recent derating justified: While Thermax is trading at a 33% discount (on consensus) to its historical 12-month forward PE, the recent derating seems justified, given the deterioration in its returns and growth prospects. On our FY13 EPS, the stock appears expensive, trading at a c18.4x PE vs. a sector average of c11.6x, and we believe potential earnings downgrades will drive the stock lower. Thus, we initiate coverage on Thermax with an Underweight rating. Our TP of INR400 is derived from our preferred EVA methodology and implies a 12-month forward target multiple of c14.9x.

Index^	BOMBAY SE IDX
Index level	17,122
RIC	THMX.BO
Bloomberg	TMX IN

Source: HSBC

Enterprise value (INRm) 49,181 Free float (%) 38 Market cap (USDm) 1.105 Market cap (INRm) 56.111 Source: HSBC

Underweight

Target price	(INR)	400.00
Share price	(INR)	470.90
Potential retu	ırn (%)	-15.1

Note: Potential return equals the percentage difference between the current share price and the target price, plus the forecast dividend yield

Mar	2011 a	2012 e	2013 e
HSBC EPS	32.17	29.56	25.63
HSBC PE	14.6	15.9	18.4
Performance	1M	3M	12M
Performance Absolute (%)	1M -11.7	3M 17.1	12M -21.2

Note: (V) = volatile (please see disclosure appendix)

HSBC vs. Consensus

	FY12e	FY13e	FY14e
Net Sales (INRm)	-0.8%	-9.1%	-19.5%
EBITDA Margin	-65 bp	-88 bp	-81 bp
EPS (INR)	-12.8%	-21.1%	-25.2%

Source: Bloomberg, HSBC estimates

29 March 2012

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Disclaimer & Disclosures

This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer. which forms part of it



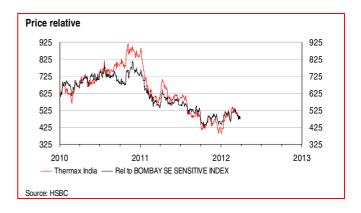
Financials & valuation

Financial statements										
Year to	03/2011a	03/2012e	03/2013e	03/2014e						
Profit & loss summary (INRm)										
Revenue	52,474	57,503	51,863	52,034						
EBITDA	5,764	5,660	4,986	5,063						
Depreciation & amortisation	-541	-785	-780	-768						
Operating profit/EBIT	5,223	4,875	4,207	4,295						
Net interest	402	253	203	298						
PBT	5,737	5,268	4,559	4,768						
HSBC PBT	5,737	5,268	4,559	4,768						
Taxation	-1,967	-1,791	-1,550	-1,621						
Net profit	3,817	3,522	3,054	3,192						
HSBC net profit	3,833	3,522	3,054	3,192						
Cash flow summary (INRm)									
Cash flow from operations	1,782	2,011	2,862	5,332						
Capex	-1,507	-1,170	-870	-870						
Cash flow from investment	-2,056	-1,170	-870	-870						
Dividends	-695	-1,246	-1,246	-1,316						
Change in net debt	606	406	-745	-3,146						
FCF equity	1,783	841	1,992	4,462						
Balance sheet summary (I	NRm)									
Intangible fixed assets	1,601	1,401	1,237	1,103						
Tangible fixed assets	6,606	7,192	7,446	7,682						
Current assets	28,650	30,870	29,360	32,578						
Cash & others	7,496	7,090	7,836	10,982						
Total assets	39,273	42,018	40,748	44,243						
Operating liabilities	22,193	22,708	19,675	21,339						
Gross debt	1,479	1,479	1,479	1,479						
Net debt	-6,017	-5,611	-6,356	-9,503						
Shareholders funds	13,149	15,425	17,233	19,109						
Invested capital	7,931	10,427	11,294	9,804						

Ratio, growth and per share	e analysis			
Year to	03/2011a	03/2012e	03/2013e	03/2014e
Y-o-y % change				
Revenue	60.1	9.6	-9.8	0.3
EBITDA	45.7	-1.8	-11.9	1.5
Operating profit	48.6	-6.7	-13.7	2.1
PBT	43.3	-8.2	-13.5	4.6
HSBC EPS	47.5	-8.1	-13.3	4.5
Ratios (%)				
Revenue/IC (x)	10.3	6.3	4.8	4.9
ROIC	67.2	35.1	25.6	26.9
ROE	32.0	24.7	18.7	17.6
ROA	10.6	8.8	7.5	7.6
EBITDA margin	11.0	9.8	9.6	9.7
Operating profit margin EBITDA/net interest (x)	10.0	8.5	8.1	8.3
Net debt/equity	-44.0	-35.3	-36.0	-48.7
Net debt/EBITDA (x)	-1.0	-1.0	-1.3	-1.9
CF from operations/net debt				
Per share data (INR)				
EPS reported (fully diluted)	32.03	29.56	25.63	26.79
HSBC EPS (fully diluted)	32.17	29.56	25.63	26.79
DPS	9.00	9.00	9.50	10.00
Book value	114.72	133.43	148.23	163.60

Valuation data				
Year to	03/2011a	03/2012e	03/2013e	03/2014e
EV/sales	1.6	0.9	0.9	0.9
EV/EBITDA	14.2	8.7	9.7	8.9
EV/IC	16.0	5.4	4.5	4.3
PE*	23.2	15.9	18.4	17.6
P/Book value	6.5	3.5	3.2	2.9
FCF yield (%)	0.3	1.5	3.6	8.2
Dividend yield (%)	1.2	1.9	2.0	2.1

Note: * = Based on HSBC EPS (fully diluted)



Note: price at close of 28 March 2012



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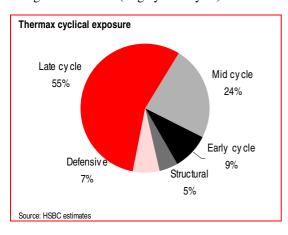


Investment thesis

- The group's 80% exposure to mid- to late-cycle capex will likely drive an order decline of c16% in FY12 and c6% in FY13, in our view
- Consequently, we forecast a sales decline of c10% in FY13 and margin erosion of c130bp during FY12-13
- ▶ Initiate with UW rating and TP of INR400; earnings bottom not yet in sight; consensus too bullish

More cyclical than structural

Our analysis of Thermax's end customers suggests that c80% of the group's order book is exposed to mid- to late-cycle capex. We estimate that the group's late-cycle exposure is c55% and its mid-cycle exposure is c24%. Some of the key end markets, where we believe that the capex recovery is likely to be back-end loaded in a business cycle, are metals and mining, power, oil and gas and cement (largely mid-cycle).



Thermax also has exposure to certain defensive sectors, such as pharma, and certain structural markets, such as waste and water treatment. It is because of this late-cycle nature of the group's addressable markets that we believe that a demand recovery remains distant for Thermax.

Economic recovery still nascent and fragile

Our analysis of various economic indicators suggests that demand for capital equipments is still heading south, which implies that the recovery is still somewhat distant. While some of the indicators, particularly on the demand side, have shown a V-shaped recovery over the last couple of months, we believe it is still too early to call a bottom to the cycle and start expecting smooth, sustainable growth.

In particular, we note that GDP growth has deteriorated significantly and there remains downside risk to FY13-14 GDP growth estimates. While industrial production growth has shown some recovery, it remains volatile and prone to declining consumer spending. The only positive indicator at the moment is the pick-up in the PMI for new orders, but we note that it is only trending near the historical average and is not supported by export orders.



Some may argue that the interest rate cycle is currently at an inflection point and its likely reversal is another key positive. However, we note that the reversal in the interest rate cycle may not immediately lead to a revival in capital investments. Our statistical analysis of repo rates and the impact on GDP shows that there is usually a lag of around two quarters between the rate cut and the corresponding pick-up in GDP growth. Furthermore, industrial production (IP) growth picks up only after 3-4 quarters of rate cuts.

The impact of rate cuts takes even longer to percolate through capital investments and statistical analysis of last five years suggests that gross capital formation growth generally picks up when the interest rate cycle bottoms. Hence, we believe that late-cycle capex recovery is still 12-18 months away.

Additionally, exports demand remains weak. The OECD leading indicator remains at a 10-year low and the Baltic Dry Index (BDI) also points to a significant weakness in the global environment.

The situation remains grim, even from the supply side, with industrial capacity utilisation trending below 75%, c10ppts below the investment threshold of c85%. In addition, inventories continue to rise and the delivery times are lengthening, underlining a possible delay in delivery pick-ups by customers.

The monetary environment also remains weak with broad money (M3) supply growth falling to c14% compared to historical (last 8 years) average of c17.1%. Credit growth has also slowed over the last 12 months and stands at c11.9% YTD (April 2011 to February 2012) vs. c16.7% in the corresponding period last year.

In addition to a weak monetary environment, we note that business confidence also appears low at the moment and is likely to push back capital investments. Gross capital formation growth has turned negative and the employment outlook (as measured by PMI) has worsened and remains in the contraction territory. In addition, the lack of confidence on government policy reforms (as measured by an index) has increased significantly over the last two quarters.

Hence, we argue that the economic recovery is still fragile and barely past the bottom of the cycle. In our opinion, a late-cycle capex recovery is still 12-18 months away, and Thermax is likely to experience muted demand for its products during this period. As such, the stock is likely to remain weak, unless we see an uptick in orders, which as we highlight is at least 3-4 quarters away and will depend on the pace of rate cuts.

Industrial capex likely to remain weak

We note that c65% of Thermax's products are used in captive power, while c35% of the products are used for industrial processes.

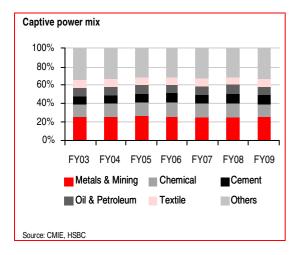
In our opinion, growth of captive power in India can be largely attributed to four key drivers:

- Need for back-up power arrangement
- Requirement of better quality (nonfluctuating) electricity supply
- ▶ The co-gen benefits of steam and electricity
- Lower cost of production vs. high industrial tariffs

In addition to these factors, the ability to sell excess captive power at higher merchant rates has also led to swift additions in captive power capacity in the recent past. However, this driver has been fairly short-lived, as merchant (short-term) rates have trended lower in the last two years and have dampened expectations of a continuous increase in rates in lieu of a power supply deficit.



In addition, we argue that the cost advantage of captive power over state-supplied industrial power is likely to diminish going forward, driven largely by changing fuel mix, i.e. increasing dependence on imported coal and diesel/oil. Hence, we believe that 'quality and reliability' will be the only driver for setting up captive power plants by industrial customers and captive capacity additions will closely track the capex in some of the key sectors, such as metals, cement, refineries and power.



As we discuss below, we believe that the capex outlook in all of these sectors remains weak.

Metals and mining

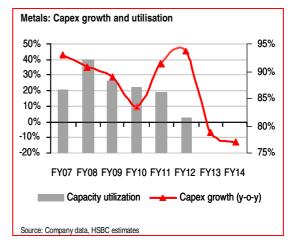
Metals and mining companies are the biggest users of captive power capacity and account for c25% of India's captive generation capacity.

Metals capex is usually late cycle and the nearterm outlook in our opinion is weak. Driven largely by steady erosion in consumption growth, the production of two key commodities – steel and aluminium – has seen a steady decline in growth over the last two years.

Additionally, after a strong run-up during 2010 and the first half of 2011, price increases of key commodities started easing during the second half of 2011 and coming into 2012, the prices of aluminium and copper have actually started

coming down. Steel prices continue to increase, however, at a much slower pace than in 2010-11.

Moreover, our bottom-up analysis suggests that capacity utilisation has steadily fallen over the last 2-3 years to c80%, which remains below the investment threshold of c85-90%. With excess capacity, muted production growth, easing prices and lower utilisation levels, our metals and mining team currently forecasts sector capex to fall by c6% in FY13 and c13% in FY14.



Cement

Cement sector is one of the top 5 consumers of captive power and is largely a mid to late-cycle market as far as capex cycle is concerned. However, unlike Metals, some of the leading indicators in the cement sector have turned positive and indicate that capex may pick up earlier than a typical late cycle market – i.e., over the next 12-18 months.

We note that production growth and dispatches have picked up and are now trending at c15% y-o-y, which in our opinion is likely to support utilisation levels going forward. In addition, cement prices have also seen a sharp increase in the last year, with the average wholesale price in Maharashtra reaching around INR295/50Kg vs. an average price of around INR245/50Kg in the last five years.

However, our bottom-up analysis indicates that utilisation levels have fallen significantly in spite of

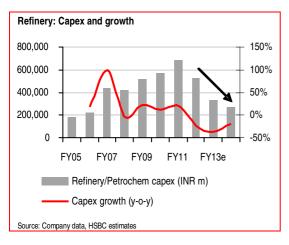


production increases, driven largely by capacity expansion. The capacity utilisation for the industry currently stands at c75%, which is below the investment threshold of c85-90%. Hence, we believe the capex outlook for the cement sector remains mixed. Our cement team currently forecasts capex to fall by c10% in FY13 before picking up again in FY14 with growth of c14%.

Refineries

Refinery capex in India typically follows a cycle of 3-5 years, such that after every two years of heavy investments there is a period of moderate capex for another 2-3 years. We believe we are just past that heavy investment phase as oil and gas (refineries) companies in 2010 and 2011 have invested almost 3x the average annual capex in the prior five years.

Driven largely by the recent capacity expansions, capex in the next 2-3 years is likely to normalise and average cINR375bn. In addition, we note that capacity utilisation of Indian refineries has largely remained unchanged in the last four years and is unlikely to have any significant impact – good or bad – on the investment decisions in the medium term. Our oil and gas team forecasts refinery capex to fall by c26% y-o-y on average for the next three years.



Power

The power sector has lately witnessed a significant deterioration in its investment outlook.

We note that while capacity additions have continued to grow by 8-10% over the last two years, the average PLF (plant load factor) of thermal plants has continuously headed south and is currently averaging c77% vs. a target of c90%-plus. Such sub-optimal levels of PLF, along with ambitious capacity addition plans, have stretched the finances of many power players, posing risk to future investments.

Additionally, the lack of availability of domestic coal has emerged as a serious issue in the power sector. Not only has it led to lower realisation of proposed PLFs, but also to significant curtailment of future capacity addition plans. Accordingly, CEA has already lowered their 12th and 13th plan capacity addition targets to c76GW and c93GW, respectively, from c100GW and c110GW.

Moreover, the sector currently has oversupply of equipment and this excess supply is likely to marginalise smaller players like Thermax. Our utilities team estimates that the supply of utility boilers currently exceeds demand by c90%. Hence, in our opinion, smaller players may not see the kind of ramp-up in this segment as they may have initially hoped for.

Overall, Thermax orders likely to decline significantly in FY12-13

Driven largely by weak economic recovery and muted capex outlook in key sectors, we expect Thermax orders to remain weak going into FY13. We expect late-cycle capex to pick up only after 12-18 months and forecast an order intake (consol) decline of c16% in FY12 and c6% in FY13.

Earnings likely to surprise negatively

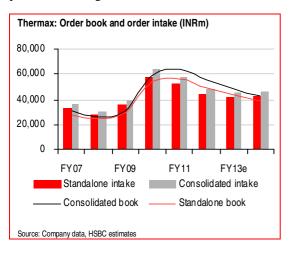
Energy is predominantly late cycle

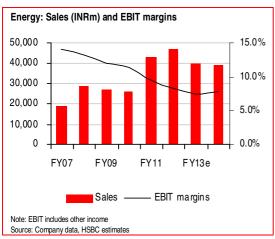
Energy is more cyclical of the two divisions and its end market mix is skewed towards late-cycle capex and captive power demand. We note that the Energy order book has depleted by c11% in



the first nine months of FY12 and given the weak capex outlook, we forecast the order book to decline further to around INR43.1bn in FY12 and INR36.8bn in FY13.

In addition, we note that Energy margins have come under pressure as the growth is slowing and in 3Q FY12, stood at c9.5%, down c120bp q-o-q and c130bp y-o-y. A potential decline in steel prices, in our opinion, can support margins in the medium term, but otherwise we believe excess supply (and hence, pricing pressure) and declining revenues are likely to put further downward pressure on margins.





In addition, we believe that the group's foray into supercritical boilers may not bear fruits in the medium term. The company has not secured any supercritical orders as of now and given the weak outlook for power plant capex along with excess supply, we believe that Thermax may not be able to realise the kind of ramp-up it was hoping for.

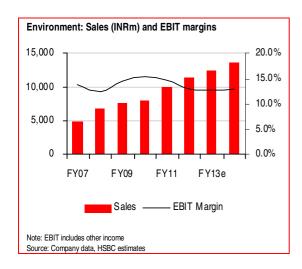
Given the lack of orders and the visibility on demand in this JV (TBW), we currently value the JV at its book value of INR2.1bn, or INR18 per share. We have done a scenario analysis to gauge the value of this JV in a bull-case and bear-case situation. Our analysis suggests that in the worst case, the JV is worth c0.6x PB (cINR11.5 per share), while in the best case the JV is worth c2.2x PB (cINR39.5 per share). Please refer to page 37 for more details.

Environment is less cyclical, but outlook mixed

Around 40% of the Environment business is non-cyclical in nature and is driven either by government spending or demand for consumables; however, the order book in this division has also come under pressure and fallen by c6% in the first nine months of FY12. Margins have also started moderating. Compared to the average margins of c14% during FY09 and FY10, margins fell to c13% in FY11 and averaged c12% in the first nine months of FY12. We believe that the increase in steel prices is putting downward pressure on APC margins, which, in turn, is bringing down the divisional margin.

On a positive note, supply-side pressures appear less in Environment as the market seems to be consolidating and the marginal players now account for only c20% of the market compared to c45-50% in 2001. In addition, Thermax's superior products, such as speciality chemicals, have helped the company to retain better profitability than the industry average. As such, we expect moderate sales growth in Environment and margins to stabilise in FY13-14 after falling in FY12.





Earnings bottom is still distant, likely to drive downgrades

As we have discussed, we expect capex to remain muted and hence, we forecast consol order intake to fall by c6% in FY13 and expect order book to shrink by c12%. We believe that weakness in orders this year is likely to reflect more profoundly in sales in FY13 and consequently, we forecast consolidated revenues to fall by c10% in FY13 and remain flat in FY14. Margins, as we discussed, are likely to remain under pressure due to declining revenues and pricing pressure on new orders and hence, we forecast an erosion of c130bp in EBITDA margins during FY12 and FY13 (compared to FY11). Consequently, while we believe that earnings will decline in FY12 as well, they will bottom only in FY13. We forecast EPS of INR29.6 for FY12 and INR25.6 for FY13.

We are c20-25% below consensus on FY13-14 EPS

While we are only c12% below consensus on FY12e EPS, we remain significantly more bearish (c21% below consensus) on FY13 earnings. We note that management is currently guiding for sales growth of c7-10% in FY12 and a decline of c10% in FY13. While our estimates tally well with the guidance, consensus remains overly bullish on FY13, factoring in only a c2% decline in sales. In addition, we believe consensus margin estimates are highly

optimistic, as they currently assume a margin decline of only c40bp in FY12-13 vs. management expectation of a c100bp decline. We, however, remain bearish on margins, particularly against weaker sales and forecast a margin decline of c110bp in FY12 and c20bp in FY13, putting us significantly below consensus on FY12-13 EPS.

Initiate with UW and TP of INR400

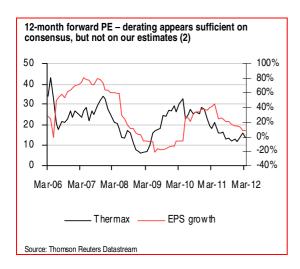
Derating appears sufficient on consensus, but not on our estimates

On consensus numbers, Thermax is currently trading at a discount of c33% on 12-month forward PE compared to its historical average. However, we think consensus appears lofty, and hence, on our numbers, the stock doesn't appear cheap, trading at s c18.4x FY13e PE and c9.7x FY13e EV/EBITDA. The stock also doesn't appear cheap on EV/backlog, which is usually a key metric for capital goods companies, and is currently trading near the historical average of c1.5x.



We also note that Thermax has witnessed a significant erosion in its returns – both ROE and ROCE – as well as its growth prospects, and hence the recent derating appears justified, in our view.

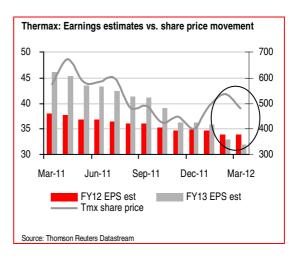






Earnings cut yet to be reflected in the price

In the last year, the consensus for the group's FY12/13 EPS has fallen by c12%/32%, while the share price has declined by c16%. The divergence between earnings cuts and share price movement has been significant in the last three months, such that the stock price has increased by c20% even though earnings estimates (FY13) have been cut by c11%. It seems like the earnings cut after 3Q FY12 results has not yet fully been reflected in the share price.



Initiate with UW and TP of INR400

As we demonstrate in the report, we believe that most of the economic lead indicators still point to a fragile economic recovery and significant downside risks remain. In addition, we note that Thermax is a late-cycle play, and as such, is likely to see weak demand in the medium term. We further argue that consensus still remains overly bullish in its assessment of earnings going into FY13 and is likely to witness downgrades, on both sales growth and margins, in which case the stock will likely weaken further. Hence, we initiate coverage on Thermax with an Underweight rating and a target price of INR400.

Our target price is derived from our preferred EVA valuation methodology and is based on a target sales growth of c7%, through cycle operating return (EBIT) margin of c8.5% (in line with average OR margin during FY11-15e), a target asset (CE) turn of c5.0x and a WACC of c13.5% (vs. sector average of c12.0-12.5%).

Our target price implies that 12 months from now, the stock should be trading at a 12-month forward PE of c14.9x on 24-month forward EPS of INR26.8. This basically implies a derating of c19% compared to the current 12-month forward PE of c18.4x.



Key risks

We highlight below the keys risks to our investment thesis on Thermax:

- ► A significant rate cut and its impact on the revival of economic environment
- ▶ Large order wins in a couple of markets
- Significant order wins in the TBW JV (our best-case scenario)
- Significant decline in raw material prices, particularly steel.

FY forecast summary											
			Ne	w Forecasts		Bloomb	erg Conser	nsus	HSBC	vs. Consens	sus
Thermax - March YE (INR m)	FY10a	FY11a	FY12e	FY13e	FY14e	FY12e	FY13e	FY14e	FY12e	FY13e	FY14e
Order Backlog	59,660	64,460	55,254	48,439	42,724						
Net Sales	32,766	52,474	57,503	51,863	52,034	57,993	57,055	64,634	-0.8%	-9.1%	-19.5%
Clean EBITDA	3,957	5,764	5,660	4,986	5,063						
Reported EBITDA	3,947	5,740	5,660	4,986	5,063	6,087	5,986	6,815	-7.0%	-16.7%	-25.7%
Clean EBIT	3,515	5,223	4,875	4,207	4,295						
Reported EBIT	3,505	5,199	4,875	4,207	4,295	5,760	5,581	6,286	-15.4%	-24.6%	-31.7%
Other Income	105	136	140	150	175						
Net Financials	394	402	253	203	298						
Profit before tax	4,004	5,737	5,268	4,559	4,768	6,004	5,817	6,483	-12.3%	-21.6%	-26.5%
Income tax	(1,416)	(1,967)	(1,791)	(1,550)	(1,621)						
Extraordinary items	(1,149)	Ó	Ó	Ó	Ó						
Minorities	4	47	45	45	45						
Clean Net Income	2,598	3,833	3,522	3,054	3,192						
Reported Net Income	1,443	3,817	3,522	3,054	3,192	4,032	3,858	4,356	-12.7%	-20.8%	-26.7%
Clean EPS	21.8	32.2	29.6	25.6	26.8						
Reported EPS	12.1	32.0	29.6	25.6	26.8	33.9	32.5	35.8	-12.8%	-21.1%	-25.2%
DPS	5.0	9.0	9.0	9.5	10.0	8.9	9.2	10.4	1.1%	3.3%	-3.8%
			Ne	w Forecasts		Bloomb	erg Conser	nsus	HSBC	vs. Consens	sus
Margins & Trend	FY10a	FY11a	FY12e	FY13e	FY14e	FY12e	FY13e	FY14e	FY12e	FY13e	FY14e
Sales visibility (years)	1.8	1.2	1.0	0.9	0.8						
Sales growth	-4%	60%	10%	-10%	0%	11%	-2%	13%	-0.9%	-8.2%	-13.0%
Clean EBITDA margin	12.1%	11.0%	9.8%	9.6%	9.7%						
Reported EBITDA margin	12.0%	10.9%	9.8%	9.6%	9.7%	10.5%	10.5%	10.5%	(65)	(88)	(81
Clean EBIT margin	10.7%	10.0%	8.5%	8.1%	8.3%						
Reported EBIT margin	10.7%	9.9%	8.5%	8.1%	8.3%	9.9%	9.8%	9.7%	(145)	(167)	(147
PBT margin	12.2%	10.9%	9.2%	8.8%	9.2%	10.4%	10.2%	10.0%	(119)	(140)	(87)
Clean NI margin	7.9%	7.3%	6.1%	5.9%	6.1%				. ,	. ,	. ,
Reported NI margin	4.4%	7.3%	6.1%	5.9%	6.1%	7.0%	6.8%	6.7%	(83)	(87)	(61

Source: Company data, Bloomberg, HSBC estimates

			FY13e_							
Company	Current share price (INR)	Mcap (INRm)	P/E	EV/ EBITDA	EV/ Sales	P/B	EPS Growth	ROE	EBITDA Margin	Div Yield
Kalpataru Power	103	15,955	8.14	4.94	0.49	0.95	22.5%	13.3%	10.0%	1.5%
KEC Intl	60	15,578	5.98	6.57	0.62	1.18	41.6%	19.7%	9.4%	2.2%
ABB Ltd	825	176,571	44.04	25.76	2.08	6.02	74.6%	13.5%	8.1%	0.4%
Areva T&D India	188	45,359	17.10	9.51	1.02	3.27	33.8%	19.0%	10.8%	1.3%
Crompton Greaves	138	89,108	13.75	7.74	0.71	2.27	61.9%	16.6%	9.2%	1.8%
Siemens Ltd	770	264,648	36.00	20.44	1.96	5.88	-4.7%	16.1%	9.6%	1.0%
Thermax	471	56,664	18.37	9.67	0.93	3.18	-13.3%	18.7%	10.0%	2.0%
Average - simple			20.48	12.09	1.12	3.25	30.9%	16.7%	9.6%	1.5%
Average - weighted			30.98	17.79	1.61	4.79	29.0%	15.9%	9.3%	1.1%

Source: Thomson Reuters Datastream

Valuation summar	y – Sector Peers
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						FY13e				
Company	Current Share Price (INR)	Mcap (INRm)	P/E (x)	EV/ EBITDA (x)	EV/ Sales (x)	P/B (x)	EPS Growth (%)	ROE (%)	EBITDA Margin (%)	Div Yield (%)
ABB Ltd	825	176571	31.64	19.34	1.67	5.02	23.1%	16.9%	8.7%	0.4%
Areva T&D India	188	45359	19.90	10.81	1.16	3.17	23.0%	18.8%	10.8%	1.0%
Bajaj Electricals	196	19707	10.11	6.58	0.59	2.25	27.6%	24.0%	9.0%	2.0%
Bharat Electronics	1510	121988	11.92	4.80	0.79	1.84	10.1%	16.0%	16.4%	1.7%
BHEL	252	623254	9.18	5.48	1.01	2.08	2.2%	24.4%	18.4%	2.7%
Blue Star	193	17543	13.59	9.58	0.64	2.88	119.8%	22.8%	6.7%	2.8%
Crompton Greaves	138	89108	12.84	7.97	0.77	2.13	33.6%	17.4%	9.7%	1.6%
Cummins India	462	129330	19.35	15.49	2.62	5.64	15.2%	28.0%	16.9%	2.6%
EMCO	29	1921	3.87	3.39	0.38	0.31	-324.3%	7.1%	11.3%	2.4%
Gammon	42	5725	5.53	13.86	1.20	0.26	-1.6%	4.6%	8.7%	1.5%
Indotech	83	895	3.14	2.71	0.40	0.51	135.4%	17.6%	14.8%	4.8%
IVRCL Infra	60	16192	6.77	9.01	0.87	0.69	15.9%	10.6%	9.6%	1.8%
Jaiprakash Assoc	77	165244	13.03	13.48	3.40	1.44	4.1%	11.2%	25.2%	1.6%
Jyoti Structures	38	3184	3.02	3.09	0.33	0.40	11.1%	14.4%	10.8%	3.4%
Kalpataru Power	103	15955	7.26	5.79	0.67	0.78	1.8%	11.9%	11.5%	1.8%
KEC Intl	60	15578	7.04	5.73	0.51	1.22	20.7%	18.8%	8.8%	2.1%
L&T	1308	808800	16.90	15.20	1.79	2.76	11.4%	17.2%	11.8%	1.3%
Patel Engineering	102	7193	4.22	5.70	0.92	0.40	-3.7%	9.6%	16.1%	1.7%
Punj Lloyd	53	17674	10.75	7.36	0.60	0.56	677.0%	4.4%	8.1%	0.6%
Siemens Ltd	770	264648	27.43	17.17	1.86	5.42	8.7%	20.1%	10.9%	0.9%
Simplex	234	11668	6.34	4.69	0.45	0.91	28.1%	15.3%	9.5%	1.0%
Thermax	471	56664	14.77	8.74	0.91	2.99	-5.6%	21.6%	10.4%	2.0%
Voltamp	515	5258	6.33	4.44	0.74	1.10	22.9%	19.2%	16.7%	2.7%
Voltas	106	35403	12.28	8.73	0.62	2.03	287.6%	17.8%	7.0%	1.9%
Average - simple			11.55	8.71	1.04	1.95	47.7%	16.2%	12.0%	2.0%
Average - weighted			16.12	11.85	1.56	2.93	18.8%	19.3%	14.0%	1.4%

Source: Thomson Reuters Datastream





Economic recovery still nascent and fragile

- Most economic indicators heading south; capacity utilisation has fallen to c75%, much below the investment threshold of c85%
- M3 supply growth has slowed and so has credit growth; business confidence remains weak
- Statistical analysis shows that IIP growth picks up only after 3-4 quarters of a rate cut; GCF growth picks up only when rates bottom

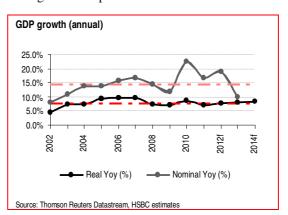
Our analysis of various economic indicators suggests that demand for capital equipments is still heading south, which implies that the recovery is still somewhat distant. While some of the indicators, particularly from the demand side, have shown a V-shaped recovery over the last couple of months, we believe it is still too early to call the bottom of the cycle and start expecting a smooth and sustainable growth from here on.

We divide economic indicators into four main categories: 1) demand-side indicators, 2) supply-side indicators, 3) credit availability, and 4) business confidence indicators. We believe that these indicators put together offer a good insight into the near-term outlook for business spending. And, as we discuss below, we believe that economic recovery is still at a nascent stage and fragile at best.

Demand outlook remains fragile

GDP growth has slowed considerably

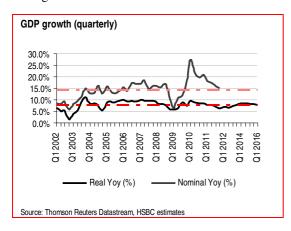
From the post-crisis peak of c9.4% y-o-y in 1Q10, GDP growth has now slowed to c6.0% in 4Q11. The growth expectations have moderated sharply over the last three quarters, but the risk of further downgrades still persists.



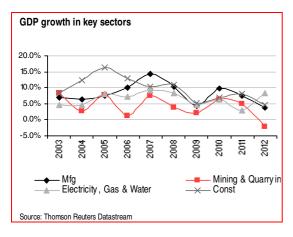
In any case, the near-term outlook over the next three quarters clearly remains weak, with GDP expected to grow c6.0-7.0% y-o-y (HSBC Economics team forecasts) and even in the

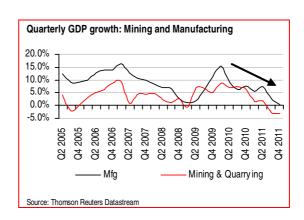


medium term (i.e. during FY13-14), growth is likely to be c7.5-8.0%, which remains significantly below the pre-crisis (2005-07) average of c9.5%.



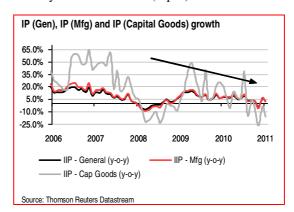
In addition, we note that GDP growth in some of the key sectors, such as manufacturing, mining and construction, has been slowing for the last eight quarters, implying a potential built-up of excess capacity.





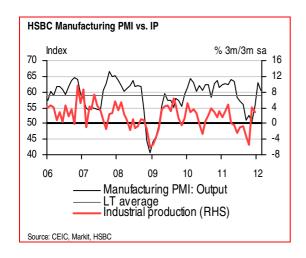
Industrial production growth has shown a recovery, but remains volatile

Industrial production (IP) growth has shown considerable volatility over the last year, fuelling hopes of a recovery at every uptick. However, as we demonstrate in the charts below, the general trend has only been downwards. In particular, the capital goods component of the IP has shown significant weakness, highlighting a considerable slowdown in industry-wide investments (capex).

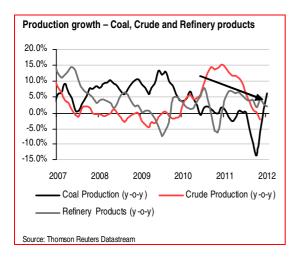


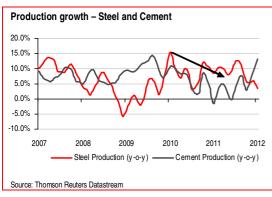
While the latest HSBC PMI output data suggests a recovery that may qualify as a classic V-shaped recovery, we believe it is too early to start extrapolating this data and production (demand) may just be moving off lows. We note that unless we see a sustainable and material improvement in industrial production growth, capital investment is unlikely to follow.

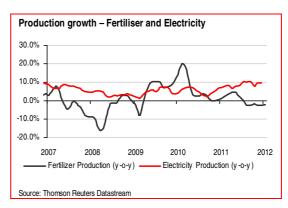




In addition, we note that production growth in most of Thermax's key end markets remains weak and is likely to dampen any investment plans in the near term.

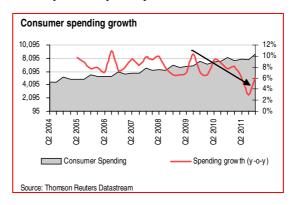






Consumer spending at its weakest in the last six years

In any economy, consumer spending is usually a strong leading indicator for a recovery in industrial demand and, in turn, a pick-up in industrial capex. As we highlight in the chart below, while consumer spending growth has picked up from the bottom of 3Q11, it still remains significantly below the average growth seen in the previous five years (2005-10). We believe that unless consumer spending goes back to the trend growth of the last five years, we will not see a swift recovery in demand for early-cycle capital goods, which, in turn, will likely delay the recovery in late-cycle capex even more.

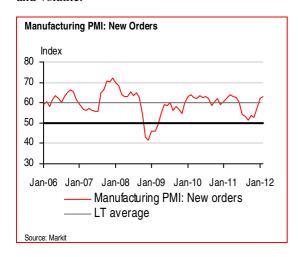


New orders PMI shows improvement, but is it enough?

The manufacturing PMI for new orders has recovered from its lows in the last two months and is now trending above its historical average of 60.3. However, the brevity of this recovery cannot



be ignored, and with other leading indicators, such as industrial production, consumer spending and capacity utilisation point south, we will not be surprised if the recovery in new orders is slow and volatile.



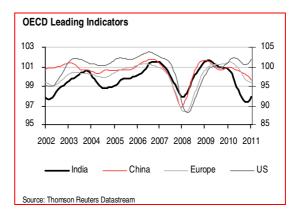
Export orders remain weak

Growth in exports has come off sharply in the last 2-3 quarters, and the recovery that it has shown in the last two months remains fairly muted. While only a small portion of Thermax's business is exports (c21% including deemed exports), we believe that a weakness in international demand at the time of domestic slowdown will act as an additional negative factor for the company and is likely to compound earnings erosion.



OECD leading indicator also at its lowest in the last 10 years

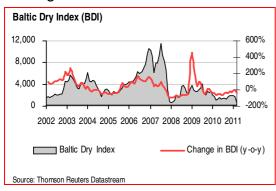
The OECD leading indicator has usually been a good yardstick for gauging the demand outlook in any economy. For India, this indicator reached a trough during 2000-01 and then during 2008-09; however, it has recently created a new lower trough during October-November 2011. While it has recovered somewhat in December 2011, the reading still remains below both the previous troughs, pointing towards a bleak near-term outlook for demand.



In terms of international economies, the indicator continues to head south for Europe and China, but has shown improvement for the US. We believe that in the absence of a recovery in China and Europe, international demand is likely to remain muted and continue to exert downward pressure on earnings growth.



Baltic Dry Index (BDI) also points to a weak global environment

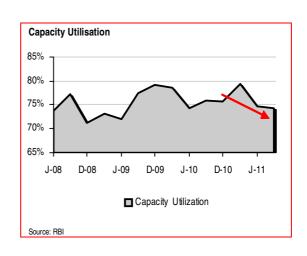


The Baltic Dry Index (BDI) is usually a good indicator of global economic activity, as it measures the demand for shipping capacity. As we show in the chart below, the BDI has dropped significantly from its peak in 2008 and has registered a fresh sharp dip in January 2012, reaching the lowest point in the last 10 years, which was otherwise witnessed during the crisis of 2008-09. This is additional evidence, which suggests that international economic activity remains weak, and hence export demand may not prove to be a support in the near term.

Supply appears adequate; expansion not required

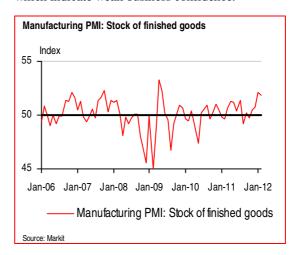
Capacity utilisation continues to trend downwards

According to the RBI data, industrial capacity utilisation has fallen to c74% (as at September 2011), which, in our opinion, remains significantly below the 85% threshold typically required for capacity expansion. We think it is only natural that the demand-side equation improves first, paving the way for the supply-side situation to become conducive of further investments. Given that we have not yet seen a sustainable and coherent improvement in the demand indicators, we believe that a recovery in capacity utilisation levels is still somewhat distant, and hence we don't expect a meaningful capex recovery over the next 12 months.



Inventories are on the rise

HSBC PMI data suggests that the stock of finished goods has increased considerably over the last six months or so and is trending well above the historic average. This, in our opinion, highlights the mismatch of supply vs. demands and also points towards a delay in delivery pick-up, both of which indicate weak business confidence.

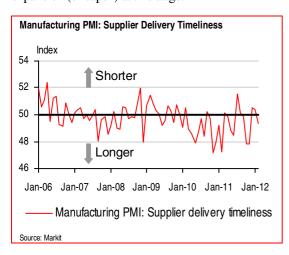


Delays in delivery pick-up evident in delivery time increase

HSBC PMI data shows that delivery times on average have increased in 2011. This could either point to capacity constraints or delays in delivery pick-up. Given that capacity utilisation has trended only lower during 2011 (as we discussed above), we believe that the increase in delivery times highlights delays in delivery pick-up by customers. It is also an



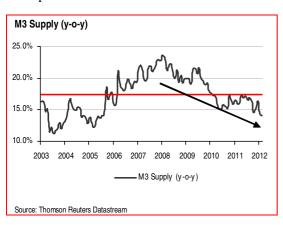
issue, which has been reported by several capital goods companies over the last two quarters. Hence, we interpret that demand is still lagging supply, and therefore there is little support for capacity expansion (or capex) at this stage.



The monetary environment remains dovish

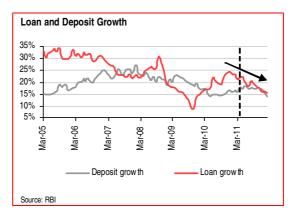
M3 supply growth, though healthy, continues to trend downwards

Broad money supply (M3) growth has shown consistent erosion in the last 12 months and now stands at c14% compared to the last eight-year average of c17.5%. In our opinion, lower money supply growth is likely to slow down a recovery in 'demand' and, in turn, the eventual recovery in the capex.

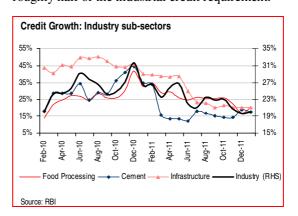


Credit growth has also slowed

Unlike money supply, a slowdown in credit growth is going to have a direct impact on business managers' decision making as far as further investments in capacities are concerned. As we show in the chart below, loan growth has slowed considerably over the last 12 months and stands at c11.9% YTD (April 2011-February 2012) vs. c16.7% in the corresponding period last year.



In terms of sectors, credit growth to industry slowed to c20.2% in January 2012 compared to growth of c26.5% in the previous year. Overall credit growth to Industry has fallen from a peak of c32% in December 2010 to c20% in January 2012. Sectors with the most erosion in credit growth include infrastructure, food processing and cement. Together, these sectors account for roughly half of the industrial credit requirement.



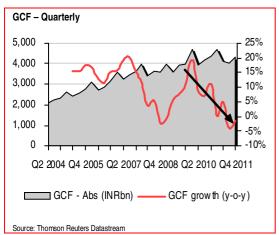


Business confidence low

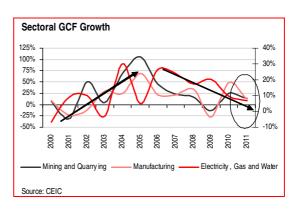
GCF growth has moderated

Gross capital formation (GCF) has moderated significantly over the last six quarters. Quarterly data suggests that GCF growth turned negative during 3Q11 and 4Q11, implying a very weak business environment.



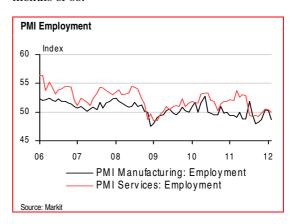


Within the industry segment, three of the four key sectors – manufacturing, mining and utilities – have shown significant erosion in GCF growth over the last year. The erosion in GCF clearly indicates that business confidence remains weak and economic uncertainty prevails.



Employment outlook worsening

The manufacturing PMI for employment has tipped below 50 (threshold for expansion) and stood at 48.7 in February 2012, implying a contraction. Similarly, employment in services is in the contraction zone and stood at 49.9 in February 2012. We believe that the weakening employment outlook implies two things: 1) managers are not confident about the business outlook; and 2) consumer spending and, in turn, economic recovery is likely to be gradual rather than the V-shaped trend seen over the last two months or so.

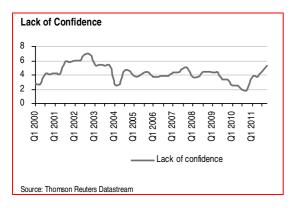


Lack of confidence in policies is on the rise

Apart from other things, lack of reforms and the government's ability to make difficult decisions has played a key role in derailing economic growth in India. In addition, it has also negatively impacted the capex plans in various industries, as many players wait for resolution on several issues.

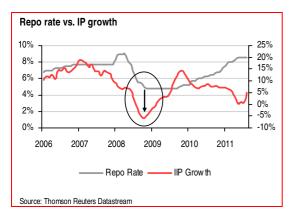


As we show below, the lack of confidence in the government and economic policy has increased significantly over the last two quarters, which, in turn, has acted as dampener of business confidence. We believe that unless we see an improvement in this area, a material revival in confidence and, in turn, capex is unlikely.

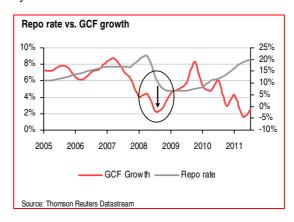


The interest rate conundrum

The interest rate cycle is at its peak now, and we are likely to witness modest rate cuts during 2012. However, we note that the reversal in the interest rate cycle may not immediately lead to the revival in capital investments. Our analysis of reporates and its impact on GDP shows that there is usually a lag of around two quarters between a rate cut and the corresponding pick-up in GDP growth. However, industrial production (IP) growth picks up only after 3-4 quarters of a rate cut.



The impact of rate cuts takes even longer to percolate through to capital investments, and our analysis of the last five years suggests that GCF growth generally picks up when the interest rate cycle bottoms.



Given that the first rate cut is likely to happen in 2Q12, we believe that industrial production growth will likely pick up only by the end of 2012 and the pick-up in capital formation will take another 2-3 quarters after that.

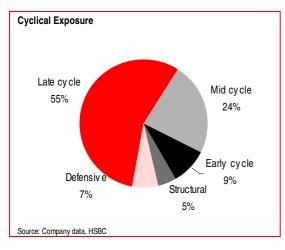


Capex analysis suggests a weak outlook

- Captive power addition is likely to track industrial capex as other drivers, such as high merchant rates and the cost advantage fade
- ► Thermax is predominantly a late-cycle play; we discuss four of its key end markets and estimate an average capex cut of c15% in FY13 and c9% in FY14
- Assuming a 12-month lead time in ordering, we forecast Thermax's order inflow to decline by c16% in FY12 and c6% in FY13

Thermax is predominantly a late-cycle, domestic play

Our analysis of Thermax's end customers suggests that c80% of the group's order book is exposed to mid- to late-cycle capex. We estimate that the group's late-cycle exposure is c58% and its mid-cycle exposure is c19%.



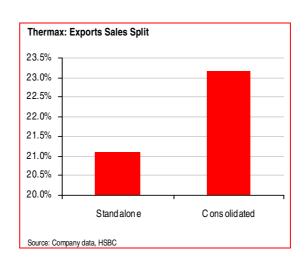
Some of the key end markets, where we believe that the capex recovery is likely to be back-end loaded in a business cycle, are metals & mining, power, oil & gas and cement (largely a mid-cycle sector). Thermax also has exposure to certain defensive sectors, such as pharma, and certain structural markets, such as waste & water treatment.

It is because of this late-cycle nature of the group's addressable markets, we believe that the demand recovery for Thermax still remains distant. As we discussed in the previous chapter, economic data has just started (in the last two months) showing some signs of improvement and if anything, the recovery still remains nascent and fragile. Even if we assume that the bottom of the cycle is potentially behind us, it will take at least another six months before consumer spending and demand for early-cycle products starts picking up. This pick-up in demand should then percolate through to production increases and should drive up utilisation levels across the industry over the next six months. This should then trigger capital investments in early-cycle industries over the



subsequent six months, which, in turn, should drive capex in mid- to late-cycle industries in the period after that. Simply speaking, we believe that even if we are already past the bottom of the cycle, we will still need at least 18 months of sustainable economic recovery, as well as monetary easing, which looks likely, before late-cycle capex kicks in. On the other hand, if the economic indicators are just moving off the lows and slow progress on reforms dampens the recovery, then the pain for Thermax could be fairly long term.

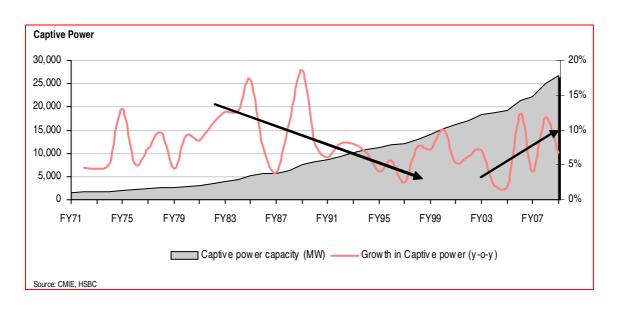
In addition, we note that Thermax's exposure is predominantly domestic, with only c21% of sales coming from exports (including deemed exports). Not that we expect much from international demand, given that most indicators are still pointing south as we earlier discussed, but this underlines the fact that demand recovery for Thermax has to come from the domestic markets.



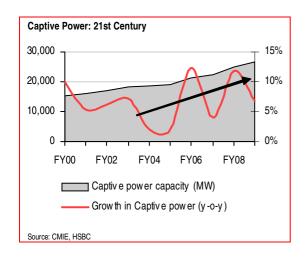
Captive power addition unlikely to grow in the near term

Captive power addition to closely track industrial capex as merchant power prices normalise

Captive power generation capacity has witnessed significant growth in India over the last 40 years. Starting from a capacity of c1.5GW in 1970, captive power generation increased to c27GW at the end of FY09.



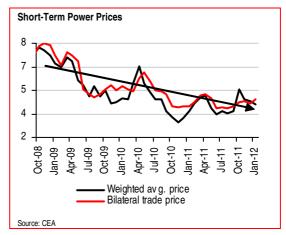




In our opinion, the growth of captive power in India can be largely attributed to four key reasons:

- Need for back-up power arrangement
- Requirement of better quality (nonfluctuating) electricity supply
- ► The co-generation benefits of steam and electricity
- Lower cost of production vs. high industrial tariffs

In addition to these factors, the ability to sell excess captive power at higher merchant rates also led to swift addition in captive power capacity in the recent past. However, we believe that this driver was fairly short-lived as merchant (short-term) rates have trended lower in the last two years and have dampened the expectations of a continuous increase in rates in lieu of a power supply deficit.



Hence, the aforementioned four factors are likely to remain the key drivers of future capacity additions over the medium term and, in our opinion, will closely track capex plans of various industries.

Cost advantage of captive power likely to diminish going forward

Crisil in its 2009 power report estimated that the average cost of captive power generation stood at close to INR3.6 per kWh vs. an average state tariff of around INR4.0, implying that captive power was only c10% cheaper than state electricity.

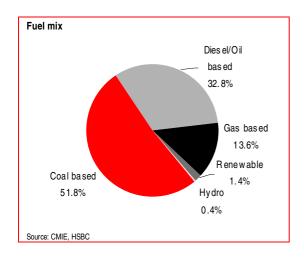
Fuel-wise captive tariff					
Fuel	INR/KWh	% Ехр			
Coal/Steam/Gas	2.3	65.4%			
Diesel/Furnace oil	6.3	32.8%			
Wind/Bagasse/Waste	2.7	1.4%			
Average	3.6				

Source: IDFC, CMIE, HSBC

While state power has become more expensive over the last two years, with an average increase in tariff of c18-20% (similar or lesser increase in industrial tariffs), the cost of captive power is also likely to increase materially.

According to Centre for Monitoring Indian Economy (CMIE), c52% of the captive power remains coal based, c33% of the power is diesel/oil based, while only c14% is gas based.





Currently, most of the coal-based captive plants run on a mix of domestic and imported coals. While the availability of domestic coal has become significantly scarce for the entire power sector, we believe it is going to be particularly acute for the captive power generators. This is because the coal policy aimed at captive power plants in the 12th Five-Year Plan seems highly unfavourable and restricts domestic coal allocation to: 1) only c5% of the total coal production in India; 2) captive power plants, which **do not** use imported coal; and 3) captive power plants (<200MW), which buy equipment **only from** Indian equipment suppliers.

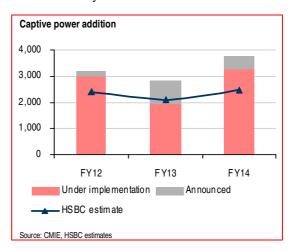
Amidst such restrictive measures, we believe that incrementally either captive power plants will have to increase their reliance on imported coal or switch to oil/diesel- or gas-based power generation. Given that there are significant constraints on gas supply in India (the power ministry has recently advised developers to refrain from setting up new gas-based projects until 2015-16, as no additional domestic gas is likely to be available for new plants), as well as complicated logistics associated with importing coal, particularly for smaller captive plants, we believe that oil/diesel is likely to be the preferred fuel for captive plants over the medium term, in which case the cost of generation is going to exceed cINR6-7 per unit. Even for imported coal,

the cost of generation is going to increase by c50-60% compared to that of domestic coal. Such potential increases in captive power cost may ultimately result in the loss of the cost advantage over state power and leave 'quality & reliability' as the only driver for setting up of captive power plants by industrial customers.

Project analysis suggests annual capacity additions of c2.0-2.5GW

We have looked at more than 300 captive power projects, which are currently under various stages of implementation and are likely to be commissioned over the next five years or so.

According to CMIE data, captive power capacity additions are likely to fall from c3.2GW in FY12 to c2.8GW in FY13 before going back to c3.8GW in FY14. We note that CMIE lists all captive power projects, which are coming across India and not all of these projects may end up being commissioned. Hence, we assume that c25-35% of these projects are likely to get stalled/cancelled, and hence we estimate that for the next three years captive power addition is likely to be 2.0-2.5GW.

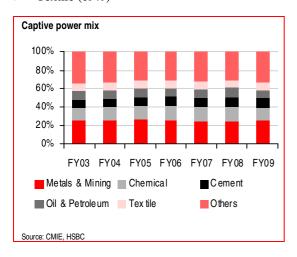


Capex in five sectors key for captive power additions

Our analysis of non-utilities (captive) generation capacity suggests that the following five sectors contribute around two-thirds of India's total captive capacity.



- ▶ Metals & mining (c26%)
- ▶ Chemicals (c13%)
- Cement (c11%)
- Oil & petroleum (c9%)
- ► Textile (c9%)



In terms of Thermax's exposure to captive power plants' capex, we note that the key end markets are metals & mining, cement, power, refinery and sugar & food.

Below we discuss some of these key end markets and the potential outlook for capital investments by these industries over the medium term.

Metals & Mining

Metals & mining companies are the biggest users of the captive power capacity and account for around one-fourth of India's captive generation capacity. Unsurprisingly, this sector is biggest customer for Thermax and currently contributes around 20% to the group's order book (OB). We believe that metals & mining is clearly a latecycle market in terms of capex cycle and is likely to see muted growth in investments over the medium term, as we argue below.

Production growth steadily eroding

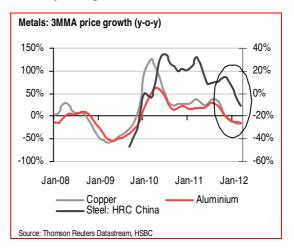
Driven largely by steady erosion in consumption, production of two key commodities – steel and

aluminium – has seen a steady decline in growth over the last two years. In addition, while the production of the third key commodity – copper – has not demonstrated a clear downward trend in growth, but has remained weak and fallen on average by c4% over the last two years.



Prices have started easing

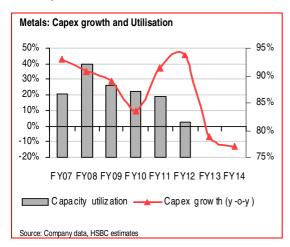
After a strong run-up during 2010 and first half of 2011, price increases of key commodities started easing during the second half of 2011 and coming into 2012, prices of aluminium and copper have actually started coming down. Steel prices continue to increase, however, at a much slower pace than in 2010-11. We believe that pricing trends are key determinants of future investments by metals & mining players and, given the recent downward trend, we believe future investments are likely to be pushed back.





Capacity utilisation has fallen and so have capex estimates

Our bottom-up analysis of the major metals & mining players suggests that capacity utilisation has steadily fallen over the last 2-3 years, which is quite natural, given the gradual decline in production and unabated capacity additions. According to our analysis, capacity utilisation for metal companies now hovers around 80%, which remains below the investment threshold of c85-90%. In addition, we note that this sector has witnessed significant capacity additions in the last five years, with capex growth averaging c33%. Hence, with excess capacity, muted production growth, easing prices and lower utilisation levels, metals & mining capex is expected to fall over the next two years. Our metals & mining team currently expects sector capex to fall by c6% in FY13e and c13% in FY14e.

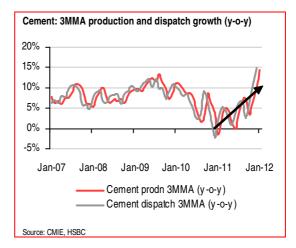


Cement

The cement sector is one of the top 5 consumers of captive power and contributes c15% to Thermax's order book. Like metals & mining, we believe cement is largely a mid- to late-cycle market as far as capex cycle is concerned. However, unlike metals & mining, some of the leading indicators in the cement sector have turned positive and indicate that cement capex may pick up earlier than a typical late-cycle market – i.e. over the next 12-18 months.

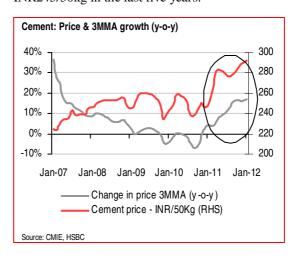
Production growth and dispatches have picked up

As we show in the chart below, growth in cement production in India, along with dispatches, has picked up in the year, benefiting probably from a low base. Production growth is now trending c15%, which, in our opinion, is likely to support utilisation levels going forward. In addition, growth in clinker production (typically a lead indicator for cement growth) has also picked up in the last six months after remaining subdued for almost a year.



Cement prices creating new high

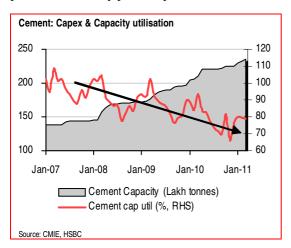
Along with production, cement prices have also seen a sharp increase last year, with the average wholesale price in Maharashtra reaching around INR295/50kg vs. an average price of around INR245/50kg in the last five years.



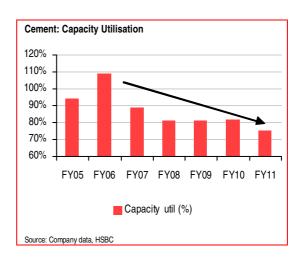


Capacity utilisation remains low, but is likely to pick up

One of the key negatives for a pick-up in cement capex is a decline in capacity utilisation, which the industry has witnessed over the last 3-4 years. The average utilisation has fallen from c90% in 2008-09 to c80% in 2010-11. However, we note that the industry utilisation data that we have is slightly outdated in a sense that it doesn't cover the trends over the last nine months, when the production actually picked up.



To augment our industry analysis, we have also done a bottom-up analysis of utilisation levels by looking at some of the key players in this sector. The analysis suggests that utilisation levels continued to trend downwards in FY11 in spite of production increases and fell to c75%, significantly below the investment threshold of c85-90%. This decline in utilisation levels, in our opinion, can largely be attributed to continuous expansion of production capacities.



Because of this factor, we believe that the outlook for cement capex remains mixed, as lower utilisation levels are likely to deter industry participants from undertaking large investments in the near future. However, given strong production and pricing trends, utilisation levels are likely to increase, and we may see capex growth resuming over the next 12-18 months. Our cement team currently forecasts capex to fall by c10% in FY13e before picking up again in FY14e with growth of c14%.

Oil & Gas/Refineries

Just past a heavy investment phase

Refinery capex in India typically follows a cycle of c3-5 years, such that after every two years of heavy investments there is a period of moderate capex for another 2-3 years. We believe that we are just past that heavy investment phase, as oil & gas (refineries) companies in 2010 and 2011 have invested almost 3x the average annual capex in the prior five years. We highlight below some of the key expansion projects undertaken by some of the major players.

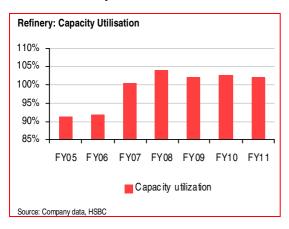


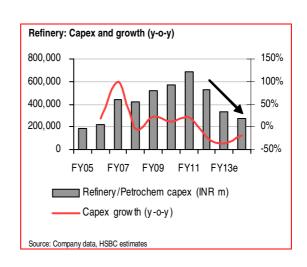
Refinery: Major Projects					
Major projects (INRm)		Year			
HPCL projects Modernisation-Mumbai refinery Modernisation-Vizag refinery SBM at Vizag refinery FCCU at Mumbai refinery	17,298 21,478 6,435 9,000	2011 2010 2011 2011			
BPCL projects Kochi refinery expansion Bina refinery	39,414 104,000	2011 2011			
IOC projects IOC Panipat cracker Paradip refinery Gujarat expansion	145,804 335,040 68,980	2011 2012 2012			
Reliance Industries Petchem expansion	45,202	2009			
GAIL DVPL expansion Chainsa - Jhajjar - Hissar Dadri - Nangal Total	107,640 13,150 23,580 937,020	2011 2011 2011			

Source: Company data, HSBC

Capex is likely to decline going forward

Driven largely by recent capacity expansion, capex in the next 2-3 years is likely to normalise and average cINR375bn. In addition, we note that capacity utilisation of Indian refineries has largely remained unchanged in the last four years and is unlikely to have any significant impact – good or bad – on investment decisions in the medium term. Our oil & gas team currently forecasts refinery capex to fall by c26% y-o-y on average for the next three years.





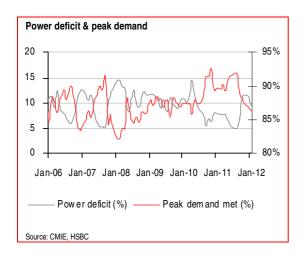
Power

The power sector has lately witnessed significant deterioration as far as its investment outlook is concerned. While the argument for capacity expansion, driven by persistent power deficit, remains intact, the supply-side bottlenecks, such as coal, land availability, etc. have imposed significant restrictions on the likely realisation of future capacity addition plans. As such, we believe that ordering is likely to slow down materially over the next five years and due to a severe increase in competition, marginal players, such as Thermax, are going to find it increasingly difficult to consolidate their position in this sector. We discuss key factors below.

High power deficit is a persistent driver for future capacity additions

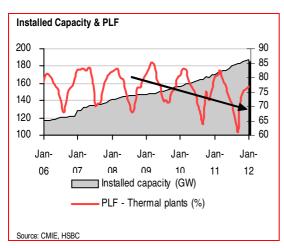
India's power deficit has averaged c9% over the last seven years. The situation started improving in 2010, as new capacity ramped up quickly; however, recently the deficit has increased again and is now hovering around 10-11%.





While capacity additions have come through, PLFs have not picked up

We note that while capacity additions have continued to grow by c8-10% over the last two years, the average PLF (plant load factor) of thermal plants has continuously headed south and is currently averaging c77% vs. a target of c90%-plus. Such sub-optimal level of PLF, along with ambitious capacity addition plans, has stretched the finances of many power players, posing a risk to future investments.



Coal availability has become a serious threat to future investments

The lack of availability of domestic coal has emerged as the biggest issue in the power sector currently. Not only has it led to lower realisation of proposed PLF, but also to significant curtailment of future capacity addition plans. According to the estimates from HSBC's utilities team, domestic coal supply is likely to meet only c83% of the demand by FY15e compared to c93% of demand met by local supply in FY09.

Coal demand supply						
In MT	FY09	FY12e	FY13e	FY14e	FY15e	
Demand - Central	154	174	178	194	212	
Supply - Central	141	150	153	167	181	
% Met	92%	86%	86%	86%	85%	
Demand - State	223	245	235	240	246	
Supply - State	208	211	215	218	220	
% Met	93%	86%	91%	91%	89%	
Demand - Private	8	27	39	56	76	
Supply - Private	7	12	34	41	42	
% Met	88%	44%	87%	73%	55%	
Demand – Total	385	447	452	490	534	
Supply – Total	357	373	402	427	443	
% Met	93%	83%	89%	87%	83%	

Source: HSBC estimates

In light of significant constraints posed by inadequate coal supply, CEA has already lowered the 12th and 13th Five-Year Plan capacity addition targets to c76GW and c93GW from c100GW and c110GW earlier. It remains highly likely that actually capacity addition may end up being much lower than the current plans, as has been the case historically.

Capacity addition estimates							
Particulars	FY13e	FY14e	FY15e	FY16e	FY17e	Total	
Hydro	1565	2875	1905	1259	1600	9204	
Thermal	15446	16740	11445	10500	9580	63711	
Nuclear	0	0	0	1400	1400	2800	
Total	17011	19615	13350	13159	12580	75715	
Coal	14360	16740	11445	10500	9580	62625	
Gas	1086	0	0	0	0	1086	
Particulars	FY18e	FY19e	FY20e	FY21e	FY22e	Total	
Hydro	1464	1331	2292	3770	3149	12006	
Thermal	18140	15980	11880	9175	8275	63450	
Nuclear	1400	2100	4300	6250	3950	18000	
Total	21004	19411	18472	19195	15374	93456	

Source: CEA, HSBC estimates



Excess supply is likely to marginalise smaller players

According to recent industry data, a significant portion of the earlier 12th Five-Year Plan's capacity target of 100GW has already been ordered and hence, what is left for ordering now are really 13th Five-Year Plan-related projects. This has two ramifications: 1) this reduces the potential ordering per annum over the next five years, and 2) this increases the risk of project deferrals/cancellations as the visibility on the 13th Five-Year Plan remains highly opaque and industry sentiment remains weak. Our utilities team estimates that over the next five years, orders worth merely 9-10GW will be awarded per annum.

BTG market order flow estimate					
	GW				
Overall 12th Plan (FY13-17) capacity envisaged	100				
Overall 13th Plan (FY18-22) capacity envisaged	110				
Total	210				
Less: Firm orders for 12th plan already placed until May 2011	97				
Total to be placed up to FY17	113				

Source: BHEL, HSBC estimates

We note that Thermax is largely a small captive power plant equipment supplier, with a strong market share in the sub-50MW segment. The company also got into a technology tie-up with Babcock & Wilcox (B&W) in 2008 to start manufacturing sub-critical boilers with capacity of up to 300MW per unit. The company won a few orders from large-sized captive plants and entry-level utility plants during 2009-10 to deliver boilers of 50-300MW per unit. In addition, Thermax recently (2010) entered into another technology tie-up with B&W to manufacture super-critical boilers. The manufacturing plant is currently under construction and will be commissioned in September 2012. Thermax has so far not won any orders for super-critical boilers. Hence, Thermax remains a small player in the utilities space.

We note that equipment suppliers have added significant BTG capacities over the last few years, which are likely to far exceed demand. Our utilities team estimates that the utilities boiler segment currently has an overcapacity of c90% compared to the expected boiler demand for the next five years. Hence, in our opinion, smaller players like Thermax may not see the kind of ramp-up in this segment as they may have initially hoped for.

Balance orders to be placed until FY17			
Description	GW	Awardee/ Likely	Projects
Further committed capacity to			
Chinese/Foreign players over last quarter			
- Reliance Power	30	Shanghai Electric	Chitrangi (4GW), Krishnapatnam (4GW), Tilaiya (4GW) and others
- Reliance Power	2	General Electric	Samalkot Gas project (2.4GW)
- Lanco Infratech	11	Harbin Power	Not declared yet
Total	43	None to BHEL	•
Bulk orders offered through competitive			
bids only to domestic players			
- 11x660MW of NTPC/DVC	7	Boiler: BGR-Hitachi (6-7), BHEL(4-5)	Nabinagar (3x660), Meja (2x660),
		TG: Bharat Forge-Alstom(4), BHEL(4), JSW-Toshiba (3)	Mauda Ext (2x660), Solapur (2x660) and Raghunathpur Phase II (2x660)
- 9x800MW of NTPC	7	Boiler: Doosan (5), BHEL(4)	Kudgi-I (3x800), Darlipalli (2x800) and
Tatal	- 11	TG: Bharat Forge Alstom (5), BHEL (2), JSW-Toshiba (2)	Lara I (2x800)
Total	14	50% likely to BHEL	
JVs formed with SEBs by BHEL	40	4000/ Block to DUE	KROL (0.40M) THER (4.60M) MR (4.60M)
Total	10	100% likely to BHEL	KPCL (2.4GW), TNEB (1.6GW), MP (1.6GW), Mahagenco (1.3GW) and Gujarat (3.2GW)
Balance open to be ordered until FY17	45	60% likely to BHEL	

Source: Company data, HSBC

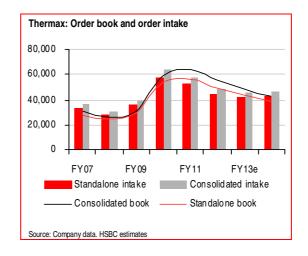


Overcapacity for boilers					
Company	Foreign partner	Boiler (GW)	TG (GW)	Operational by	Location
BHEL	Alstom (Boiler) and Siemens (TG)	20	20	4Q12 - 1HFY13	Trichy, Tamil Nadu
L&T (51%)	Mitsubishi Heavy (49%)	4	4	January 2011	Hazira, Gujarat
BGR Energy	Hitachi	5	5	Boiler - December 2012,	
-				TG - January 2013 for the initial phase	
Thermax (51%)	Babcock and Wilcox (49%)	3	0	September 2012	Shirwal near Pune, Maharashtra
Gammon (74%)	AnsaldoCaldaie Boilers (26%)	2	0	December 2012	Trichy, Tamil Nadu
Bharat Forge	Alstom	0	5	2013	Mundra, Gujarat
JSW Energy (20%), JSW Steel (5%)	Toshiba (75%)	0	3	July 2012	Chennai, Tamil Nadu
Annual equipment capacity		34	37		
Capacity over 5yr Plan		170	185		
Demand over 5yr Plan		100	100	13 Plan and beyond	
Potential Domestic overcapacity		70	85		
Chinese/Korean maintain 20% market share		20	20		
Potential over capacity including Chinese etc		90	105		
Annual over capacity		18	21		
% Overcapacity		90%	105%		

Source: Company data, HSBC

Muted capex outlook to affect order inflows

As we have discussed so far, we believe that although the economic recovery has shown some signs of a pick-up, it still remains at a nascent stage and fairly fragile. Even if the bottom of the cycle is already behind us, we believe that Thermax's late-cycle nature of the business will result in weak demand for its products over the next 12-18 months, keeping order inflows under pressure. As we have shown in the preceding sections, the capex outlook in most of Thermax's key end markets remains weak, and we expect capex and, in turn, Thermax orders to decline during FY13-14. Based on our bottom-up analysis, we forecast the group order intake to fall c7% in FY13 and remain broadly flat in FY14, leading to persistent order book erosion.





Earnings likely to surprise negatively

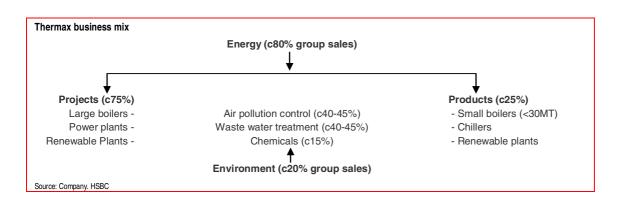
- ▶ Driven by weak orders, we forecast revenues to fall c10% in FY13 and EBITDA margins to decline by c130bp during FY12-13
- We expect earnings to fall in FY12 to INR29.6 and bottom out in FY13 at INR25.6
- Consensus appears bullish, particularly on sales growth and margins in FY13, and we are c21% below consensus

Business mix

Thermax has two main divisions – Energy and Environment. On a consolidated basis, Thermax derives c80% of its sales from the Energy business and c20% from the Environment business. Its current order book is also split into the same proportion between the Energy and the Environment divisions. However, recently, because of a cyclical decline in demand from the energy customers, the proportion of environment orders has increased to c30% of the total order intake.

The Energy division largely caters to the captive power requirement of various industrial customers and a few small utilities (largely below 300MW unit size). On the other hand, the Environment division is largely focused on providing performance enhancing chemicals (catalysts), air pollution control equipments (again to industrial customers) and waste & water management solutions. The chart at the bottom of this page highlights the business mix of Thermax.

In terms of the geographical exposure, Thermax derives c23% of its sales from exports (including deemed exports), but its actual international sales are currently c16%. Within international markets, Thermax sells predominantly to China, Southeast Asia and the Middle East.





Energy is a predominantly late-cycle business

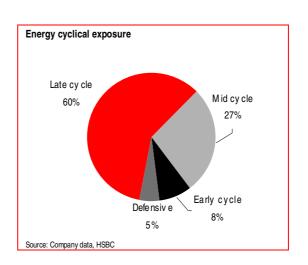
Product offering

In the Energy division, Thermax predominantly sells boilers and provides EPC services to captive power plants. The business is divided into three main parts, as follows:

- ▶ Boilers & Heaters (c30% of group sales): In this segment the company offers medium-sized and large-sized boilers (>30MT) for unit sizes up to 300MW. These boilers are largely used for the captive power needs of industries, which have high heat and steam requirements, such as metals & mining, petrochem, utilities, refineries, etc.
- ▶ Power (c30-35% of group sales): In this segment the company offers EPC solutions (on a turn-key basis) and O&M services for setting up captive power plants.
- Heating & Cooling (c15-20% of group sales):
 In the cooling segment, the company sells vapour absorption chillers and other cooling equipments. Thermax currently has a market share of c75-80% in the vapour absorption chillers in India. In the heating segment,
 Thermax offers small boilers (up to 30MT) to industries, such as food processing, pharma, chemical, etc. This division largely caters to the process heating & cooling requirements of industrial plants. The company also offers solar heating & cooling equipments, which currently is a small portfolio as a portion of total sales.

End market mix is skewed towards late-cycle markets and captive power

Between the two divisions, Energy is the most cyclical. In addition, its end market mix suggests that c85-90% of its order book is driven by midto late-cycle capex.



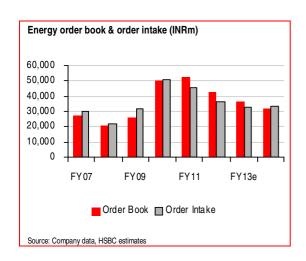
We further note that c75-80% of the Energy division's offering caters to the captive power requirement of various industries, while the remaining 20-25% products are used for industrial processes. Even within the captive power space, the exposure to mid- to large-sized captive power plants (12-300MW) is fairly large and contributes over two-thirds of the captive order book.

We note that such large projects are significantly geared to economic factors, such as business sentiment, funding costs, pace of reforms and earnings growth, which typically make them late cycle in nature. As we have discussed in previous chapters, we believe that the economic recovery is still in an early stage and late-cycle capex will start materialising only after 12-18 months.

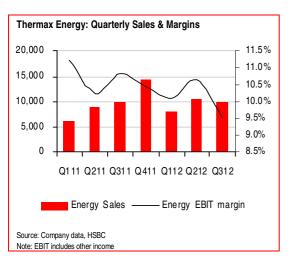
Weak demand to further drive OB and margin erosion

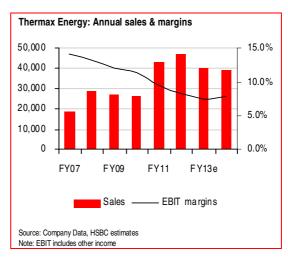
The Energy order book has been depleted by c11% in the first nine months of FY12, as the runrate of power EPC orders has been reduced sharply. As we have discussed earlier, we expect ordering activity to remain muted in this division over the next 12 months, and we forecast the order book to decline to around INR43.1bn in FY12e and INR36.8bn in FY13e.





In addition, we note that the Energy division's margins have come under pressure as the growth is slowing and in 3Q FY12, stood at c9.5%, down c120bp q-o-q and c130bp y-o-y. A potential decline in steel prices, in our opinion, can support margins in the medium term, but otherwise we believe margins could remain under pressure over the next 12 months as revenues actually start to decline.

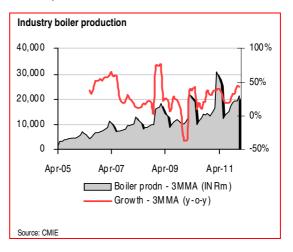




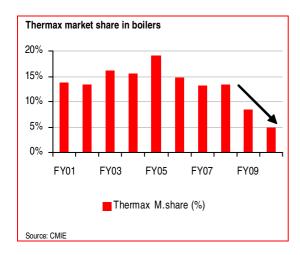
Excess supply likely to put further pressure on margins

Significant boiler capacities have been added lately, particularly in the medium- to large-sized boiler segment. Our analysis of some of the key players supplying utility boilers suggests that there is currently an excess supply of c90%, as we show on page 31.

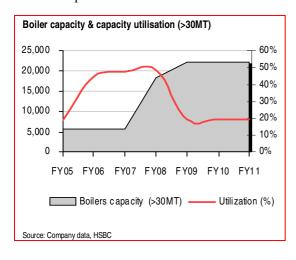
In addition, we note that Thermax seems to have consistently lost market share in the boiler segment during FY09 and FY10 to larger players like BHEL. This we believe is a reflection of a shift in the industry demand towards larger boilers (driven by increasing size of captive power plants and increasing unit size of utility plants), which is currently not the forte of Thermax.





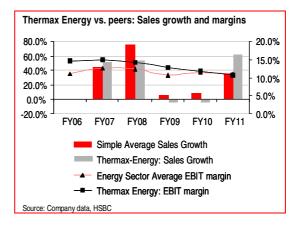


We further note that capacity utilisation levels for Thermax have fallen sharply in the last three years in the medium- to large-sized boiler segment (>30MT). The company currently has a capacity of around 22,410MT, of which only c19-20% is being utilised. Given increasing supply-side pressures and a likely reduction in demand, we believe margins remain prone to further downward pressure.



Margins have moderated to the industry average

In the last six years, the EBIT margins in the Energy division have fallen by c400bp and are now tracking the industry average. The fall in margins has been significant in the last three years, which is also the time when Thermax witnessed a step decline in its capacity utilisation for mid- to large-sized boilers (>30MT) and, in our opinion, drove margins down.



Super-critical boiler foray may not bear fruits in the near term

After a successful 20-year relationship with Babcock & Wilcox (B&W), Thermax recently entered into a JV with B&W (called TBW) in March 2010 to engineer, manufacture and supply super-critical boilers for the Indian power sector. This JV will also manufacture sub-critical boilers over 300MW in size. The manufacturing plant is currently under construction and is likely to be ready for commercial production by September 2012. However, the company has not secured any super-critical orders so far, and given the weak outlook for power plant capex, along with excess supply, we believe that Thermax may not be able to realise the kind of ramp-up it was hoping for.

Given the lack of orders and the visibility on demand in this JV, we currently value the JV at its book value of INR2.1bn, or INR18 per share. In case the company is consistently able to secure



large orders in this JV, then our valuation and earnings estimates would have potential upside.

We have done a scenario analysis to gauge the value of this JV in a best-case and worst-case situation. Our analysis suggests that in the worst-case situation, the JV is worth c0.6x P/B (cINR11.5 per share) while in the best-case situation, the JV is worth c2.2x P/B (cINR39.5 per share). We highlight our key assumptions and analysis below.

Bull-case scenario

- Orders: 2 x 660MW in FY13e, 3 x 660MW per annum in FY14-15e and 4 x 660MW per annum in FY16-18e
- ▶ Realisation: INR13m per unit in FY13e with an escalation of 5% every year
- ► EBITDA margin: c10% in FY14-15e, c11% in FY15-16e and c12% in FY18e
- ▶ Working capital: c45 days, or c12% of sales

Bear-case scenario

- ► Orders: None in FY13e, 1 x 660MW in FY14, 2 x 660MW per annual in FY15-18e
- ▶ Realisation: INR11m per unit in FY13e with an escalation of 5% every year
- ► EBITDA margin: c10% in FY14-15e, c11% in FY15-16e and c12% in FY18e
- ▶ Working capital: c45 days, or c12% of sales



Thermax Babcock Wilcox (TBW) JV: Bear-ca	ase scenario					
P&L (INRm)	FY13e	FY14e	FY15e	FY16e	FY17e	FY18e
Capacity (MW)	3,000	3,000	3,000	3,000	3,000	3,000
Orders (MW)	0	660	1,320	1,320	1,320	1,320
Delivery (MW)		0	660	1,320	1,320	1,320
Realization per MW		11.0	11.6	12.1	12.7	13.4
Sales		0	7,623	16,008	16,809	17,649
Growth (%)		•	.,	110%	5%	5%
EBITDA Margin		10%	10%	11%	11%	12%
EBITDA		0	762	1,761	1,849	2,118
		(423)	(442)	,	(479)	(496)
Depreciation EBIT		(423)	320	(461) 1,300		1,622
		` '		,	1,370	
Net Interest		(559)	(716)	(875)	(950)	(958)
PTP		(981)	(396)	425	421	664
Tax rate		33%	33%	33%	33%	33%
Income tax		324	131	(140)	(139)	(219)
Net Income		(657)	(265)	285	282	445
NI margin (%)			-3.5%	1.8%	1.7%	2.5%
Cash flow (INRm)	FY13e	FY14e	FY15e	FY16e	FY17e	FY18e
EBITDA		0	762	1,761	1,849	2,118
Interest paid		(559)	(716)	(875)	(950)	(958)
Tax paid		324	131	(140)	(139)	(219)
Change in WC		0	(915)	(1,006)	(96)	(101)
•		(235)	(738)	,	664	٠,
Op profit				(260)		(905)
Capex		(825)	(825)	(825)	(825)	(825)
Free cash flow		(1,060)	(1,563)	(1,085)	(161)	15
Change in Equity/debt		0	0	0	0	0
Net cash flow		(1,060)	(1,563)	(1,085)	(161)	15
Balance sheet (INRm)	FY13e	FY14e	FY15e	FY16e	FY17e	FY18e
Fixed Assets	8,250	8,652	9,035	9,399	9,746	10,075
Addition	-,	825	825	825	825	825
disposal		0	0	0	0	0
depreciation		(423)	(442)	(461)	(479)	(496)
Avg life (yrs)		20	20	20	20	20
Working Capital		0	915	1,921	2,017	2,118
Cash	۸	0	0	0	2,017	,
	0				-	0
Total Assets	8,250	8,652	9,950	11,320	11,763	12,193
Debt	4,125	5,185	6,748	7,833	7,994	7,979
Equity	4,125	3,468	3,202	3,487	3,769	4,214
Total equity & liabilities	8,250	8,652	9,950	11,320	11,763	12,193
Check	0	0	0	0	0	0
Interest expense		(559)	(716)	(875)	(950)	(958)
Interest income		Ò	Ó	Ò	Ò	Ò
Rate on exp	12%	12%	12%	12%	12%	12%
Rate on Inc	4%	4%	4%	4%	4%	4%
ROCE		-3%	2%	8%	8%	9%
ROE		-17%	-8%	9%	8%	11%
P/B at maturity	0.6					



Thermax Babcock Wilcox (TBW) JV: Bull-cas	se scenario					
P&L (INRm)	FY13e	FY14e	FY15e	FY16e	FY17e	FY18e
Capacity (MW)	3,000	3,000	3,000	3,000	3,000	3,000
Orders (MW)	1,320	1,980	1,980	2,640	2,640	2,640
Delivery (MW)	,	1,320	1,980	1,980	2,640	2,640
Realization per MW		13.0	13.7	14.3	15.0	15.8
Sales		17,160	27,027	28,378	39,730	41,716
Growth (%)		,	58%	5%	40%	5%
EBITDA Margin		10%	10%	11%	11%	12%
EBITDA		1,716	2,703	3,122	4,370	5,006
Depreciation		(423)	(442)	(461)	(479)	(496)
EBIT		1,293	2,261	2,661	3,892	4,510
Net Interest				•	•	
PTP		(615)	(770)	(759)	(688)	(536)
		678	1,491	1,902	3,204	3,974
Tax rate		33%	33%	33%	33%	33%
Income tax		(224)	(492)	(628)	(1,057)	(1,312)
Net Income		454	999	1,274	2,146	2,663
NI margin (%)		2.6%	3.7%	4.5%	5.4%	6.4%
Cash flow (INRm)	FY13e	FY14e	FY15e	FY16e	FY17e	FY18e
EBITDA		1,716	2,703	3,122	4,370	5,006
Interest paid		(615)	(770)	(759)	(688)	(536)
Tax paid		(224)	(492)	(628)	(1,057)	(1,312)
·		, ,	(1,184)	(162)	(1,362)	(238)
Change in WC		(2,059)		` '	, , ,	٠,
Op profit		(1,182)	257	1,573	1,263	2,920
Capex		(825)	(825)	(825)	(825)	(825)
Free cash flow		(2,007)	(568)	748	438	2,095
Change in Equity/debt		0	0	0	0	0
Net cash flow		(2,007)	(568)	748	438	2,095
Balance sheet (INRm)	FY13e	FY14e	FY15e	FY16e	FY17e	FY18e
Fixed Assets	8,250	8,652	9,035	9,399	9,746	10,075
Addition	0,200	825	825	825	825	825
disposal		0	0	0	0	020
depreciation		(423)	(442)	(461)	(479)	(496)
•		20	20	20	20	20
Avg life (yrs)		2,059	3,243	3,405	4,768	5.006
Working Capital	0	,			,	
Cash Total Assets	0 8,250	0 10,712	0 12,278	0 12,805	0 14,513	0 15,081
Debt	4,125	6,132	6,701	5,953	5,515	3,420
		4,579	5,578	6,852	8,998	11,661
Equity	4,125					
Total equity & liabilities	8,250	10,712	12,278	12,805	14,513	15,081
Check	0	0	0	0	0	0
Interest expense		(615)	(770)	(759)	(688)	(536)
Interest income		0	0	0	0	0
Rate on exp	12%	12%	12%	12%	12%	12%
Rate on Inc	4%	4%	4%	4%	4%	4%
			400/	4.40/	400/	000/
ROCE		9%	13%	14%	19%	20%
ROCE ROE	2.2	9% 10%	13% 20%	14% 20%	19% 27%	20% 26%



Environment division's outlook remains mixed

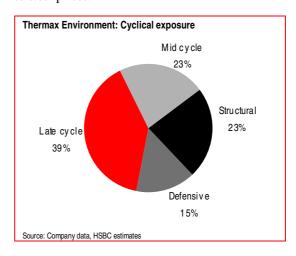
Product offering

In the Environment division, Thermax predominantly sells environment control equipments. The business is divided into three main parts, as follows.

- Chemicals (c15% of Environment sales): In this segment, the company offers performance enhancing chemicals to industrial customers. These chemicals can be broadly divided into three sub-categories: a) water treatment chemicals, b) speciality chemicals, and c) paper chemicals. These chemicals are consumables and have historically seen stable growth, even during economic downturns.
- Air pollution control (APC) equipment (c40% of Environment sales): In this segment, the company sells APC equipment, which use both dry and wet techniques to reduce NOX and SOX emissions from energy-intensive industries. This segment typically follows the capex demand of the Energy division and its profitability is highly geared to steel prices.
- Waste & water treatment (c40-45% of Environment sales): In this segment, the company sells various waste & water treatment solutions, which can be broadly divided into three main categories: a) industrial water treatment, b) industrial waste treatment, and c) treatment of sludge. Around 60% of the demand in this segment is driven by private capex, while the remaining is driven by public spending. The margins in this business are double digit and are broadly stable.

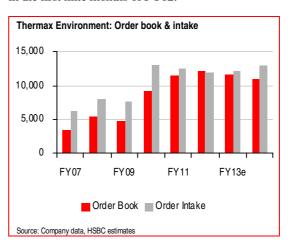
Less cyclical in nature

Around 40% of Environment business is noncyclical in nature and driven either by government spending or demand for consumables. Most of the cyclicality is actually buried in the APC equipment business, which also has high gearing to steel prices.



OB is declining and margins are moderating

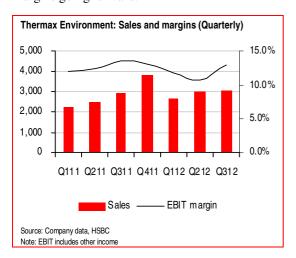
As we have highlighted earlier, c60% of the Environment division's business is cyclical and, in addition, the company has noted a slowdown in public spending under the JNNURM scheme. As a result, the order book of the Environment division has also come under pressure and has fallen by c6% in the first nine months of FY12.

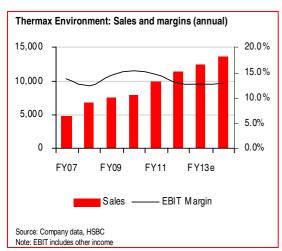


Margins have also started moderating. Compared to the average margins of c14% during FY09 and FY10, margins fell to c13% in FY11 and are now an average of c12% in the first nine months of FY12. We believe that the increase in steel prices



is putting downward pressure on APC margins, which, in turn, is bringing down the divisional margin. Our metals & mining team expects moderating steel prices, which could provide some support to the Environment division's margins going forward.

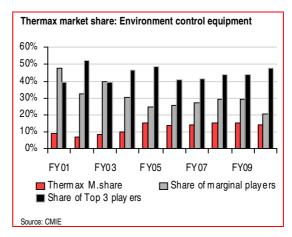




Supply-side pressures appear less, as market is consolidating

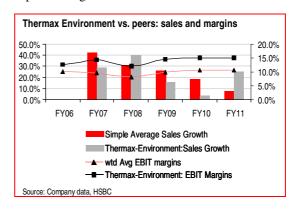
In the last 10 years, the environment control equipment market has seen significant consolidation and marginal players now account for only c20% of the market compared to c45-50% in 2001. However, the market share of the top 3 players – Thermax, VA Tech Wabag and Paharpur Cooling Towers – has remained largely stable at c45-50%. Thermax has witnessed its market share gradually improve to c14-15% from c7-9% 10 years ago, benefiting from

technology transfers and improvement in product offering. If the market consolidation continues, we believe smaller players will be further marginalised and the bigger players will see some improvement in their bargaining power. In this context, we believe Thermax remains well-placed in the industry.

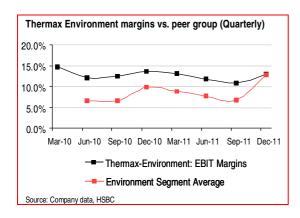


Margins remain better than peers

We note that the Environment division's margins remain significantly better than the peer group's margins. This, in our opinion, is largely driven by a large portfolio of mid-teen margin waste & water treatment projects, which Thermax has. In addition, we believe that Thermax's increasing exposure to speciality chemicals may also be contributing to superior margins.



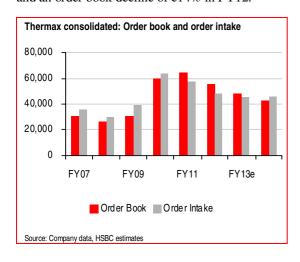




Earnings bottom still distant; likely to drive downgrades

Order inflow likely to remain muted

As we discussed in the previous chapter, we note that the capex outlook in the group's key end markets remains weak, and as such, we expect order inflow to remain subdued. In the first nine months of FY12, we have already seen both order intake and order book declining by c20% for both the standalone business and the consolidated entity. We expect orders to remain weak in 4Q FY12 and forecast an order intake decline of c16% and an order book decline of c14% in FY12.



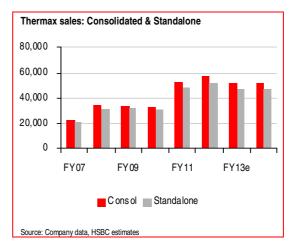
We expect the weakness to continue going into FY13, as capex from metals, refinery, power etc. is likely to remain weak. Consequently, we forecast consolidated order intake to decline by c6% in FY13 and the order book to fall further by

c12%. We expect a modest recovery in order inflows in FY14.

Weakness in orders to be reflected in FY13 sales

In the first nine months of FY12, standalone revenues are up c16%, while consolidated total income (sales + other operating income) is up c25%. We expect the weakness in order intake in the first nine months to start seeping through from 4Q FY12 onwards. Consequently, for the full year (FY12), we expect standalone sales growth to come in at c8%, while consolidated sales growth should stand at c10%.

More importantly, we believe that order weakness in FY12 will truly be reflected in sales only in FY13; hence, we forecast FY13 consolidated revenues to fall by c10% (benefitting somewhat from a currency translation impact). We expect revenues to remain flat in FY14 over the previous year.



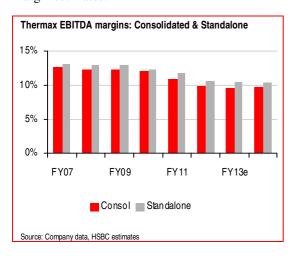
Margins to remain under pressure

For the standalone business, EBITDA margins have fallen to c10.7% in 3Q FY12 compared to c12.0% in 3Q FY11 and c11.8% in FY11. We have seen margins erode in spite of growth in revenues, which, in our opinion, is a consequence of rising raw material prices (mainly steel) and some pricing pressure. For the full year, we



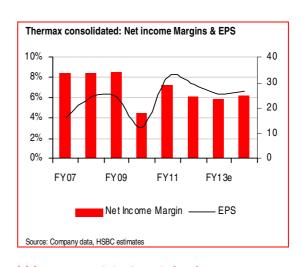
expect standalone margins to come in at c10.6%, c120bp down y-o-y. On a consolidated basis, the PBT (profit before tax) margins are down c220bp y-o-y and stood at c9.1% in 3Q FY12. We expect this weakness to persist and estimate consolidated EBITDA margins to fall to c9.8% in FY12 compared to c10.9% in FY11.

We believe that the real risk to margins lies in FY13, when revenues are likely to decline. Currently, we expect consolidated EBITDA margins to fall only c20bp in FY13, supported by lower steel prices and self-help initiatives, but our assumptions may prove optimistic. Hence, there remains downside risk to our FY13 margin estimates.



Earnings to fall in FY12, but bottom in FY13

Driven largely by a margin decline, we expect consolidated earnings (EPS) in FY12 to fall to INR29.6, down c8% y-o-y. In the first nine months, consolidated EPS is largely flat over the previous year. We expect earnings weakness in FY12 to exacerbate in FY13, when we believe both revenues and margins will come under pressure. Consequently, we expect consolidated EPS to fall by c13% in FY13 to INR25.6 before recovering modestly in FY14.



We are c20-25% below consensus on FY13-14 EPS

While we are only c12% below consensus on FY12 EPS, we remain significantly more bearish (c21% below consensus) on FY13 earnings. We note that management is currently guiding for sales growth of c7-10% in FY12 and a decline of c10% in FY13. While our estimates tally well with the company's guidance, consensus remains overly bullish on FY13, factoring in only a c2% decline in sales. In addition, we believe consensus margin estimates are highly optimistic, as estimates currently assume a margin decline of only c40bp in FY12-13 vs. management expectation of a c100bp decline. We, however, remain bearish on margins, particularly against weaker sales and forecast a margin decline of c110bp in FY12 and c20bp in FY13, putting us significantly below consensus on FY12-13 EPS.



FY forecast summary											
Thermax – March YE (INR m)			Forecasts			Bloomb	erg Conser	isus	HSBC	vs. Consens	sus
,	FY10a	FY11a	FY12e	FY13e	FY14e	FY12e	FY13e	FY14e	FY12e	FY13e	FY14e
Order Backlog	59,660	64,460	55,254	48,439	42,724						
Net Sales	32,766	52,474	57,503	51,863	52,034	57,993	57,055	64,634	-0.8%	-9.1%	-19.5%
Clean EBITDA	3,957	5,764	5,660	4,986	5,063						
Reported EBITDA	3,947	5,740	5,660	4,986	5,063	6,087	5,986	6,815	-7.0%	-16.7%	-25.7%
Clean EBIT	3,515	5,223	4,875	4,207	4,295						
Reported EBIT	3,505	5,199	4,875	4,207	4,295	5,760	5,581	6,286	-15.4%	-24.6%	-31.7%
Other Income	105	136	140	150	175						
Net Financials	394	402	253	203	298						
Profit before tax	4,004	5,737	5,268	4,559	4,768	6,004	5,817	6,483	-12.3%	-21.6%	-26.5%
Income tax	(1,416)	(1,967)	(1,791)	(1,550)	(1,621)						
Extraordinary items	(1,149)	Ó	Ó	Ó	Ó						
Minorities	4	47	45	45	45						
Clean Net Income	2,598	3,833	3,522	3,054	3,192						
Reported Net Income	1,443	3,817	3,522	3,054	3,192	4,032	3,858	4,356	-12.7%	-20.8%	-26.7%
Clean EPS	21.8	32.2	29.6	25.6	26.8						
Reported EPS	12.1	32.0	29.6	25.6	26.8	33.9	32.5	35.8	-12.8%	-21.1%	-25.2%
DPS	5.0	9.0	9.0	9.5	10.0	8.9	9.2	10.4	1.1%	3.3%	-3.8%
Margins & Trend				Forecasts		Bloomberg Consensus			HSBC vs. Consensus		
3	FY10a	FY11a	FY12e	FY13e	FY14e	FY12e	FY13e	FY14e	FY12e	FY13e	FY14e
Sales visibility (yrs)	1.8	1.2	1.0	0.9	0.8						
Sales growth	-4%	60%	10%	-10%	0%	11%	-2%	13%	-0.9%	-8.2%	-13.0%
Clean EBITDA margin	12.1%	11.0%	9.8%	9.6%	9.7%						
Reported EBITDA margin	12.0%	10.9%	9.8%	9.6%	9.7%	10.5%	10.5%	10.5%	(65)	(88)	(81)
Clean EBIT margin	10.7%	10.0%	8.5%	8.1%	8.3%						
Reported EBIT margin	10.7%	9.9%	8.5%	8.1%	8.3%	9.9%	9.8%	9.7%	(145)	(167)	(147)
PBT margin	12.2%	10.9%	9.2%	8.8%	9.2%	10.4%	10.2%	10.0%	(119)	(140)	(87)
Clean NI margin	7.9%	7.3%	6.1%	5.9%	6.1%						
Reported NI margin	4.4%	7.3%	6.1%	5.9%	6.1%	7.0%	6.8%	6.7%	(83)	(87)	(61)

Source: Company data, Bloomberg, HSBC estimates



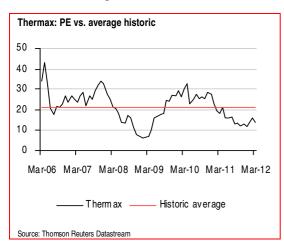
Likely earnings cut to drive derating

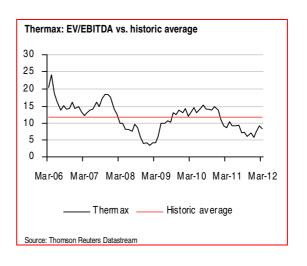
- Deterioration in returns and growth outlook have driven the derating, which appears sufficient on consensus, but not on our estimates
- At c18.4x FY13e PE, stock remains expensive vs. peers; potential downgrades are likely to drive the stock lower going forward
- ▶ Initiate coverage with UW rating and a TP of INR400, which implies a 12-month forward target multiple of c14.9x

Recent derating justified

Thermax currently trading at a discount to the historic average

After trading at lofty multiples during 2010, Thermax has derated sharply in 2011 and its valuation remains near three-year lows. On consensus 12-month forward PE, the stock is currently trading at a discount of c33% to its five-year historic average. Similarly, on EV/EBITDA, the stock is trading at a discount of c28%.

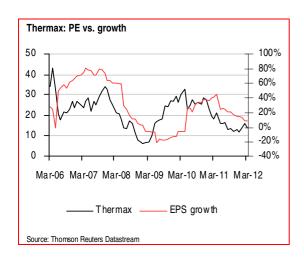


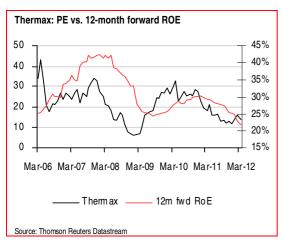


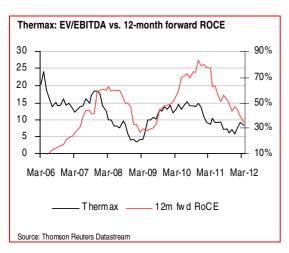
Derating appears sufficient on consensus, but not on our estimates

While the discount to historic averages may look attractive, we note that the recent derating is 'not' unjustified. As we highlight in the charts below, the derating has largely been in line with the decline in the quality of the company's earnings and returns.

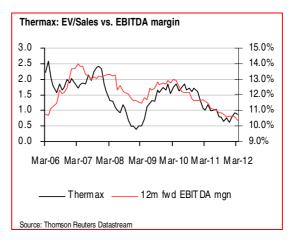




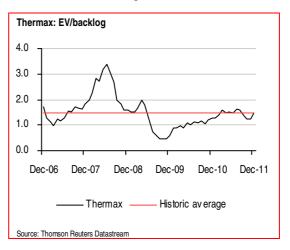




Another good way to gauge the potential mispricing in a stock is by comparing the company's EV/sales multiple with the trend in its operating margins. Here, also we note that the stock seems to have derated in accordance with the decline in its operating returns (EBITDA margins).



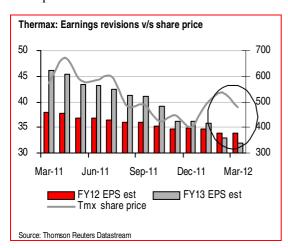
Another factor that justifies the derating is the erosion of order book. While the stock appears at a discount to the historic average on both PE and EV/EBITDA, it doesn't look cheap on EV/backlog, which is often a key metric to look at for capital goods companies. On the consensus EV/backlog, the stock is currently trading at c1.5x, which is where the historic average has been.





Earnings cut yet to be reflected in the share price

Last year, the consensus for FY12/13e EPS has fallen by c12%/32%, while the share price has declined by c16%. The divergence between an earnings cut and share price movement has been significant in the last three months, such that the stock price has remained flat, even though earnings estimates (FY13) have been cut by c11%. It seems like the earnings cut after 3Q FY12 results has not yet been fully reflected in the share price.



Initiate with UW and a TP of INR400

As we demonstrate in the report, we believe that most of the economic lead indicators still point to a fragile economic recovery with significant downside risks. In addition, we note that Thermax is only a late-cycle play, as the company is exposed to capex from late-cycle end markets, such as metals, refineries and power. We further argue that consensus still remains bullish in its assessment of earnings going into FY13, and we are likely to witness downgrades, on both sales growth and margins, in which case the stock will likely weaken further. Hence, we initiate coverage on Thermax with an Underweight rating and a target price of INR400.

Our target price is derived from our preferred EVA valuation methodology and is based on a target sales growth of c7%, through cycle operating return (EBIT) margin of c8.5%, a target asset (CE) turn of c5.0x and a WACC of c13.5%.

Our target price implies that 12 months from now, the stock should be trading at a 12-month forward PE of c14.9x on 24-month forward EPS of INR26.8. This basically implies a derating of c19% compared to the current 12-month forward PE of c18.5x.

Under our research model, for stocks without a volatility indicator, the Neutral band is 5ppts above and below the hurdle rate for Indian stocks of 11%. Our target price of INR400 implies a potential negative return of c15.1% (including a forecast dividend yield of c2%), below the Neutral band; therefore, we are initiating coverage on Thermax with an Underweight rating. Potential return equals the percentage difference between the current share price and the target price, including the forecast dividend yield when indicated.

In the tables below, we highlight the key assumptions in our valuation model, as well as sensitivity of our target price to key assumptions.

TP	sens	itivity 1										
12m	PT		Ope	Operating Return (OR) Margins								
		6%	7%	8%	9%	10%	11%	12%				
	4%	244	278	312	346	379	413	447				
モ	5%	256	292	328	364	400	436	472				
Growth	6%	267	305	344	382	421	459	498				
Ğ	7%	278	319	360	401	441	482	523				
es	8%	289	333	376	419	462	505	548				
Sales	9%	301	346	392	437	483	528	574				
	10%	312	360	408	455	503	551	599				
Sou	ırce: HS	BC estimates										

TP	TP sensitivity 2														
12m PT		Ī	Оре	erating Re	turn (OF) Margin	s								
		6%	7%	8%	9%	10%	11%	12%							
	11%	338	389	441	493	544	596	647							
	12%	314	362	409	457	504	551	599							
O	13%	295	339	382	426	470	514	558							
WACC	14%	278	319	360	401	441	482	523							
≥	15%	264	302	340	378	416	455	493							
	16%	251	287	323	359	395	431	467							
	17%	240	274	308	342	376	410	444							
Sou	ırce: HS	BC estimates													



Thermax: EVA			
Key Assumptions		12-month forward implied Mcap	
Target sales growth	7.0%	EV	35,116
Target OR margin	8.5%	EV – 12-month forward	39,857
Target asset turn	5.0	Net debt	(6,356)
Tax rate	34%	Banker's Acceptances	615
WACC	13.5%	Minorities	430
CAP	10.0	Investments/Associates	(2,558)
		Implied Mcap	47,727
Value of Current Op		Price Target	
Trend Sales	57,503	12-month forward TP	401
Trend CE	10,427	Published TP	400
CE growth	1.4%	Published Mcap	47,663
ROIČ	42.5%	Published EV	39,793
Trend OR	4,431	Current price	474
Value of current op	21,665	Upside/Downside	-15.5%
Value of Future Inv		12-month forward target multiple	
Incremental return	342	EV/Sales	0.8
Incremental cost	20	EV/EBITDA	7.9
EVA	206	EV/EBIT	9.3
Value of future inv	13,451	P/E	14.9
	.0, .0.	P/B	2.4

Key risks

We highlight below the keys risks to our investment thesis on Thermax.

- ► Significant rate cut and the impact on the revival of the economic environment
- ▶ Large order wins in a couple of markets
- ► Significant order wins in the TBW JV (our best-case scenario)
- Significant decline in raw material prices, particularly steel

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Valuation to	able –	Coverage ((Calenderised
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Company	Current Share Price	Mcap	FY13e									
,	(INR)	(INRm)	P/E	EV/EBITDA	EV/Sales	P/B	EPS Growth	ROE EBITI	OA Margin (%)	Dividend Yield		
Kalpataru Power	103	15,955	8.14	4.94	0.49	0.95	22.5%	13.3%	10.0%	1.5%		
KEC Intl	60	15,578	5.98	6.57	0.62	1.18	41.6%	19.7%	9.4%	2.2%		
ABB Ltd	825	176,571	44.04	25.76	2.08	6.02	74.6%	13.5%	8.1%	0.4%		
Areva T&D India	188	45,359	17.10	9.51	1.02	3.27	33.8%	19.0%	10.8%	1.3%		
Crompton Greaves	138	89,108	13.75	7.74	0.71	2.27	61.9%	16.6%	9.2%	1.8%		
Siemens Ltd	770	264,648	36.00	20.44	1.96	5.88	-4.7%	16.1%	9.6%	1.0%		
Thermax	471	56,664	18.37	9.67	0.93	3.18	-13.3%	18.7%	10.0%	2.0%		
Average - simple			20.48	12.09	1.12	3.25	30.9%	16.7%	9.6%	1.5%		
Average - weighted			30.98	17.79	1.61	4.79	29.0%	15.9%	9.3%	1.1%		

Source: Thomson Reuters Datastream Price as of 28 March 2012

Valuation summary						= 1/4				
Company	Current Share Price (INR)	Mcap (INRm)	P/E (x)	EV/EBITDA (x)	EV/Sales (x)	P/B (x)	3e EPS Growth (%)	ROE (%) EB	ITDA Margin (%)	Dividend Yield (%)
ABB Ltd	825	176571	31.64	19.34	1.67	5.02	23.1%	16.9%	8.7%	0.4%
Areva T&D India	188	45359	19.90	10.81	1.16	3.17	23.0%	18.8%	10.8%	1.0%
Bajaj Electricals	196	19707	10.11	6.58	0.59	2.25	27.6%	24.0%	9.0%	2.0%
Bharat Electronics	1510	121988	11.92	4.80	0.79	1.84	10.1%	16.0%	16.4%	1.7%
BHEL	252	623254	9.18	5.48	1.01	2.08	2.2%	24.4%	18.4%	2.7%
Blue Star	193	17543	13.59	9.58	0.64	2.88	119.8%	22.8%	6.7%	2.8%
Crompton Greaves	138	89108	12.84	7.97	0.77	2.13	33.6%	17.4%	9.7%	1.6%
Cummins India	462	129330	19.35	15.49	2.62	5.64	15.2%	28.0%	16.9%	2.6%
EMCO	29	1921	3.87	3.39	0.38	0.31	-324.3%	7.1%	11.3%	2.4%
Gammon	42	5725	5.53	13.86	1.20	0.26	-1.6%	4.6%	8.7%	1.5%
Indotech	83	895	3.14	2.71	0.40	0.51	135.4%	17.6%	14.8%	4.8%
IVRCL Infra	60	16192	6.77	9.01	0.87	0.69	15.9%	10.6%	9.6%	1.8%
Jaiprakash Assoc	77	165244	13.03	13.48	3.40	1.44	4.1%	11.2%	25.2%	1.6%
Jyoti Structures	38	3184	3.02	3.09	0.33	0.40	11.1%	14.4%	10.8%	3.4%
Kalpataru Power	103	15955	7.26	5.79	0.67	0.78	1.8%	11.9%	11.5%	1.8%
KEC Intl	60	15578	7.04	5.73	0.51	1.22	20.7%	18.8%	8.8%	2.1%
L&T	1308	808800	16.90	15.20	1.79	2.76	11.4%	17.2%	11.8%	1.3%
Patel Engineering	102	7193	4.22	5.70	0.92	0.40	-3.7%	9.6%	16.1%	1.7%
Punj Lloyd	53	17674	10.75	7.36	0.60	0.56	677.0%	4.4%	8.1%	0.6%
Siemens Ltd	770	264648	27.43	17.17	1.86	5.42	8.7%	20.1%	10.9%	0.9%
Simplex	234	11668	6.34	4.69	0.45	0.91	28.1%	15.3%	9.5%	1.0%
Thermax	471	56664	14.77	8.74	0.91	2.99	-5.6%	21.6%	10.4%	2.0%
Voltamp	515	5258	6.33	4.44	0.74	1.10	22.9%	19.2%	16.7%	2.7%
Voltas	106	35403	12.28	8.73	0.62	2.03	287.6%	17.8%	7.0%	1.9%
Average - simple			11.55	8.71	1.04	1.95	47.7%	16.2%	12.0%	2.0%
Average - weighted			16.12	11.85	1.56	2.93	18.8%	19.3%	14.0%	1.4%

Source: Thomson Reuters Datastream Price as of 28 March 2012

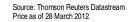
Share price performance summary – Cove

Company	Current Share Price (INR)		Absolute Performance (%)					Relative Performance to sector (%)				
. ,		1 week	1 mth	3 mths	6 mths	12 mths	1 week	1 mth	3 mths	6 mths	12 mths	
Kalpataru Power	103	-5.7%	-3.1%	11.5%	-6.1%	-15.9%	-1.9%	2.6%	-9.3%	2.8%	8.3%	
KEC Intl	60	-8.2%	0.0%	64.2%	3.0%	-23.2%	-4.4%	5.7%	43.4%	11.9%	1.0%	
ABB Ltd	825	-0.9%	0.7%	42.0%	11.8%	4.3%	2.9%	6.3%	21.2%	20.7%	28.5%	
Areva T&D India	188	-1.3%	-2.9%	16.6%	12.2%	2.8%	2.5%	2.7%	-4.2%	21.1%	27.0%	
Crompton Greaves	138	-6.1%	-4.9%	10.4%	-9.4%	-48.3%	-2.3%	0.8%	-10.4%	-0.5%	-24.1%	
Siemens Ltd	770	-3.9%	-5.1%	17.2%	-7.6%	-12.1%	-0.1%	0.6%	-3.6%	1.3%	12.1%	
Thermax	471	-3.3%	-11.7%	17.1%	-2.7%	-21.2%	0.5%	-6.0%	-3.7%	6.2%	3.0%	
Average - simple		-4.2%	-3.9%	25.6%	0.2%	-16.2%	-0.4%	1.8%	4.8%	9.1%	8.0%	
Average - weighted		-3.3%	-3.8%	23.8%	-0.6%	-12.7%	0.5%	1.9%	3.0%	8.2%	11.5%	

Source: Thomson Reuters Datastream Price as of 28 March 2012

Share price	performance summar	y – Sec	ctor Pee	rs
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Company	Current Share	Absolute Performance (%)				Performance (%) Relative Performance to sector					
	Price (INR)	1 week	1 mth	3 mths	6 mths	12 mths	1 week	1 mth	3 mths	6 mths	12 mths
ABB Ltd	825	-0.9%	0.7%	42.0%	11.8%	4.3%	2.9%	6.3%	21.2%	20.7%	28.5%
Areva T&D India	188	-1.3%	-2.9%	16.6%	12.2%	2.8%	2.5%	2.7%	-4.2%	21.1%	27.0%
Bajaj Electricals	196	5.5%	8.7%	38.7%	8.4%	-21.0%	9.3%	14.4%	17.9%	17.3%	3.2%
Bharat Electronics	1510	-5.1%	-3.5%	11.4%	-0.9%	-10.6%	-1.3%	2.2%	-9.5%	8.0%	13.6%
BHEL	252	-6.6%	-18.3%	2.0%	-23.1%	-39.9%	-2.8%	-12.6%	-18.8%	-14.3%	-15.7%
Blue Star	193	0.7%	2.5%	25.4%	-13.7%	-45.3%	4.5%	8.1%	4.6%	-4.8%	-21.1%
Crompton Greaves	138	-6.1%	-4.9%	10.4%	-9.4%	-48.3%	-2.3%	0.8%	-10.4%	-0.5%	-24.1%
Cummins India	462	-1.4%	0.2%	34.8%	11.8%	-2.0%	2.4%	5.8%	14.0%	20.7%	22.2%
EMCO	29	-9.0%	-16.5%	1.9%	-43.6%	-55.1%	-5.2%	-10.8%	-18.9%	-34.7%	-30.9%
Gammon	42	-6.1%	-21.2%	-5.0%	-41.3%	-63.1%	-2.3%	-15.5%	-25.8%	-32.4%	-38.9%
Indotech	83	-11.3%	-12.9%	9.4%	-27.3%	-42.9%	-7.5%	-7.2%	-11.4%	-18.4%	-18.7%
IVRCL Infra	60	7.3%	11.4%	111.4%	65.4%	-24.5%	11.1%	17.1%	90.6%	74.3%	-0.3%
Jaiprakash Assoc	77	-6.3%	2.7%	43.6%	9.9%	-13.0%	-2.5%	8.4%	22.8%	18.8%	11.2%
Jyoti Structures	38	-6.4%	-19.6%	1.2%	-41.2%	-53.3%	-2.5%	-13.9%	-19.6%	-32.4%	-29.1%
Kalpataru Power	103	-5.7%	-3.1%	11.5%	-6.1%	-15.9%	-1.9%	2.6%	-9.3%	2.8%	8.3%
KEC Intl	60	-8.2%	0.0%	64.2%	3.0%	-23.2%	-4.4%	5.7%	43.4%	11.9%	1.0%
L&T	1308	-2.9%	-3.0%	27.1%	-6.8%	-20.2%	0.9%	2.6%	6.2%	2.1%	4.0%
Patel Engineering	102	-7.9%	-6.5%	35.2%	7.9%	-28.9%	-4.1%	-0.8%	14.4%	16.8%	-4.7%
Punj Lloyd	53	-6.2%	-6.8%	29.0%	-3.8%	-18.2%	-2.4%	-1.2%	8.2%	5.1%	6.0%
Siemens Ltd	770	-3.9%	-5.1%	17.2%	-7.6%	-12.1%	-0.1%	0.6%	-3.6%	1.3%	12.1%
Simplex	234	3.6%	-0.7%	35.7%	-0.1%	-29.6%	7.4%	5.0%	14.9%	8.8%	-5.4%
Thermax	471	-3.3%	-11.7%	17.1%	-2.7%	-21.2%	0.5%	-6.0%	-3.7%	6.2%	3.0%
Voltamp	515	0.0%	-0.1%	11.5%	1.9%	-7.7%	3.8%	5.5%	-9.4%	10.8%	16.5%
Voltas	106	-15.1%	-2.3%	39.2%	-11.6%	-37.8%	-11.3%	3.4%	18.4%	-2.8%	-13.6%
Average - simple		-4.0%	-4.7%	26.3%	-4.5%	-26.1%	-0.2%	1.0%	5.5%	4.4%	-1.9%
Average - weighted		-4.1%	-6.2%	21.7%	-6.5%	-21.8%	-0.3%	-0.5%	0.9%	2.4%	2.4%





Thermax India (TMX) Machinery 29 March 2012



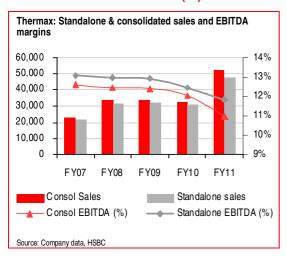
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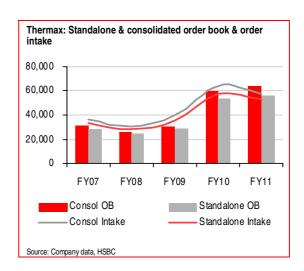


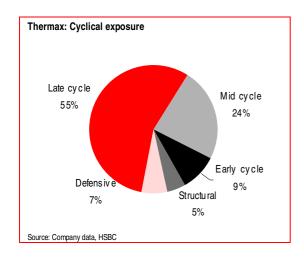
Appendices & Financials

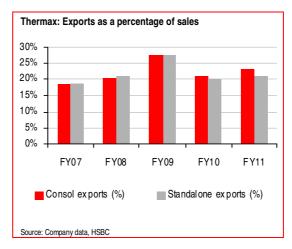


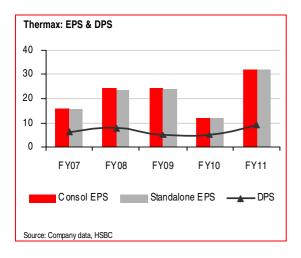
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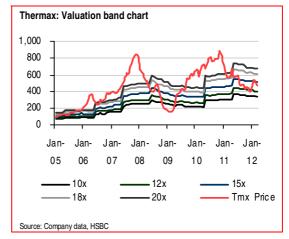






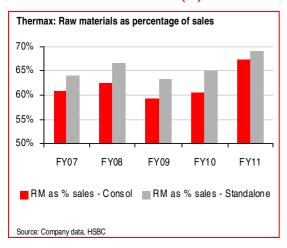


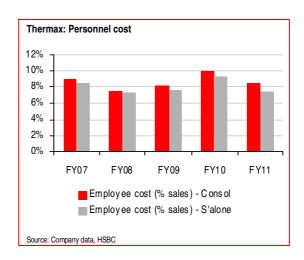


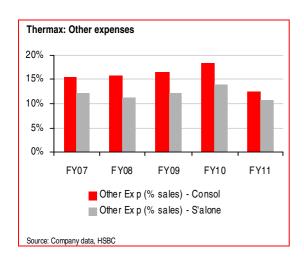


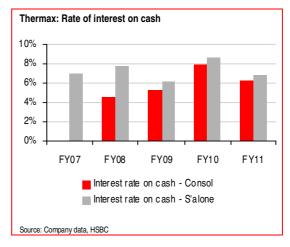


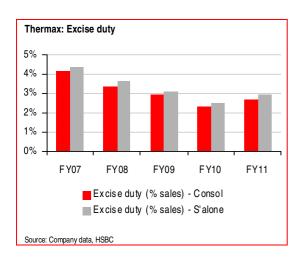
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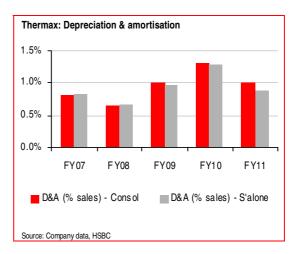






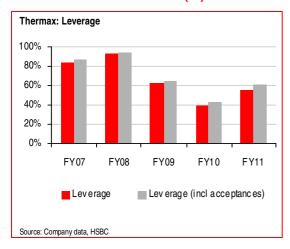


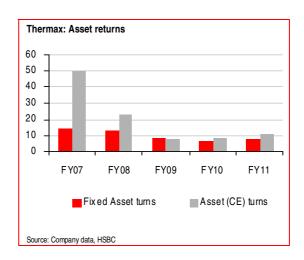


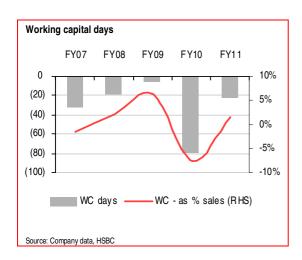


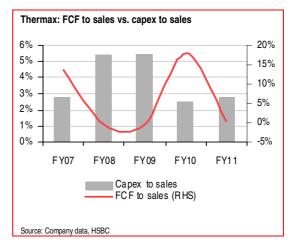


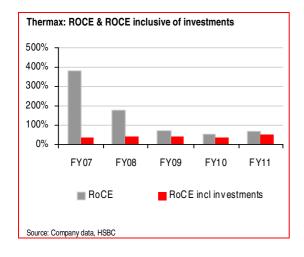
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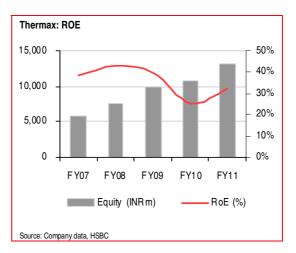














Key Technology tie-ups			_
Technology partner	Technology/Product	Segment	Date
Lambion Energy (Germany)	High efficiency biomass combustion systems	Heating Systems (4MW to 30MW)	17-May-10
Babcock & Wilcox (US)	Supercritical boilers (300MW +)	Boilers	10-Mar-10
SPX Corporation (US)	ESPs, Bag Filters, Rotary heat exchangers, etc	Air Pollution control	26-Aug-09
GE Water (US)	Ultrafiltration & membrane bioreactor (MBR) technology	Waste water treatment	21-Jul-09
Wehrle Umwelt (Germany)	Advanced membrane based waste water treatment tech	Waste water treatment	21-Jul-09
Amonix (US)	Concentrated Photovoltaic (CPV) Technology	Renewable (Solar) Plants	
Babcock & Wilcox (US)	Sub-critical Radiant utility boilers (up to 300MW)	Boilers	12-Feb-08
Balcke-Durr (Germany)	Dry & wet electrostatic precipitators	Air Pollution control	18-Oct-07
Georgia Pacific (US)	Performance enhancing chemicals for Paper Inds	Chemicals	3-Oct-07

Source: Company data, HSBC

Thermax: Manufacturing capacities							
Product	Investment (INRm)	Capacity	Plant Location				
Supercritical boilers	8,250	3000 MW	Shirwal, Satara, Mah (commissioning in Sept 12)				
Performance chemicals			Jhagadia, Gujarat (Commissioning in Dec 12)				
Air Pollution Control Egp			Solapur, Mah (Commissioning in Q4 FY12)				
Boilers & Heaters			Savli, Gujarat				
Boilers & Chillers			Pune				

Air Pollution Control Eqp

Boilers & Heaters

Boilers & Chillers

Ion exchange resins

Port facility for shipment of large size plants

Absorption Chillers

Solapur, Mah (Commissioning in Q4 FY12)

Savli, Gujarat

Pune

Pune

Paudh

Mundra

Mundra

China

Source: Company data, HSBC

Thermax: Key Subsidiaries			
Partner/Subs	Type of Partnership	Location of partner	Area of focus
Babcock & Wilcox	JV	US	Supercritical & Subcritical boilers
SPX Technology	JV	US	Improving thermal efficiency of power plant
Thermax Engg Const	100% subsidiary	India	E&C Projects for boilers & heaters (B&H) unit
Thermax Instrumentation	100% subsidiary	India	Installation & commissioning of power plants
Thermax Sustainable Energy Sols	100% subsidiary	India	Clean development mechanism (CDM) Consultancy services
Thermax Onsite Energy Sols	100% subsidiary	India	Delivering green energy on a unit consumption basis
Thermax Inc	100% subsidiary	US	Ion exchange resins and vapour absorption chillers
Thermax Europe Ltd	100% subsidiary	UK	
Thermax Cooling & Heating Co Ltd	100% subsidiary	China	Cooling Eqp, mostly absorption chillers
Thermax Denmark ApS	100% subsidiary	Denmark	Established to acquire Danstoker
Thermax Netherlands B.V.	100% subsidiary	Netherlands	Holding company of Thermax Denmark
Danstoker A/S	100% subsidiary	Denmark	Boilers & Waste heat recovery systems
Rifox-Virgo	100% subsidiary	Bremen, Germany	Steam traps and allied steam accessories

Source: Company data, HSBC



Income Statement (INR m)	FY07a	FY08a	FY09a	FY10a	FY11a	FY12e	FY13e	FY14e
Net Sales	22,897	34,328	34,041	32,766	52,474	57,503	51,863	52,034
Cost of Goods Sold (COGS)	(14,536)	(22,202)	(20,802)	(20,271)	(36,246)	(39,486)	(35,279)	(35,248)
Gross Income	8,360	12,125	13,240	12,496	16,228	18,018	16,584	16,786
Employee expense	(2,139)	(2,672)	(2,882)	(3,300)	(4,597)	(4,924)	(4,924)	(5,022)
Selling General & Admin exp (SG&A)	(3,702)	(5,675)	(6,701)	(6,186)	(6,788)	(8,284)	(7,474)	(7,500)
Other operating income	370	487	562	937	897	850	800	800
EBITDA	2,889	4,267	4,219	3,947	5,740	5,660	4,986	5,063
Exceptionals	(10)	(12)	(903)	(10)	(25)	0	0	0
Clean EBITDA	2,899	4,278	5,121	3,957	5,764	5,660	4,986	5,063
Depreciation & Amortization	(195)	(232)	(351)	(442)	(541)	(785)	(780)	(768)
EBIT	2,694	4,035	3,867	3,505	5,199	4,875	4,207	4,295
Other income	360	404	292	105	136	140	150	175
Interest income	0	35	112	414	443	401	336	423
Interest expense	(15)	(17)	(38)	(20)	(41)	(148)	(133)	(126)
Profit before tax (PBT)	3,038	4,457	4,233	4,004	5,737	5,268	4,559	4,768
Income tax	(1,046)	(1,571)	(1,357)	(1,416)	(1,967)	(1,791)	(1,550)	(1,621)
Income from JVs (Post tax)	(1,515)	0	0	0	0	0	0	(1,5=1)
Profit after tax (PAT)	1,992	2,886	2,876	2,588	3,770	3,477	3,009	3,147
Extraordinary Items	(55)	21	14	(1,149)	0	0	0	0
Minorities	Ó	0	0	4	47	45	45	45
Reported Net income	1,937	2,907	2,889	1,443	3,817	3,522	3,054	3,192
HSBC Net income	1,998	2,894	3,489	2,598	3,833	3,522	3,054	3,192
No. of shares outstanding	119	119	119	119	119	119	119	119
Reported EPS	16.3	24.4	24.2	12.1	32.0	29.6	25.6	26.8
HSBC EPS (Recurring)	16.8	24.3	29.3	21.8	32.2	29.6	25.6	26.8
Margin & Trend analysis	FY07	FY08	FY09	FY10	FY11	FY12e	FY13e	FY14e
Sales growth	42.6%	49.9%	-0.8%	-3.7%	60.1%	9.6%	-9.8%	0.3%
Organic growth	41.1%	48.8%	-1.3%	-4.4%	60.8%	9.6%	-9.8%	0.3%
Clean EBITDA growth	63.3%	47.6%	19.7%	-22.7%	45.7%	-1.8%	-11.9%	1.5%
EBIT growth	67.6%	49.8%	-4.2%	-9.4%	48.3%	-6.2%	-13.7%	2.1%
Reported EPS growth	89.0%	50.1%	-0.6%	-50.1%	164.5%	-7.7%	-13.3%	4.5%
HSBC EPS growth	94.0%	44.8%	20.6%	-25.5%	47.5%	-8.1%	-13.3%	4.5%
Gross margins	36.5%	35.3%	38.9%	38.1%	30.9%	31.3%	32.0%	32.3%
Clean EBITDA margins	12.7%	12.5%	15.0%	12.1%	11.0%	9.8%	9.6%	9.7%
EBIT margins	11.8%	11.8%	11.4%	10.7%	9.9%	8.5%	8.1%	8.3%
PBT margins	13.3%	13.0%	12.4%	12.2%	10.9%	9.2%	8.8%	9.2%
PAT margins	8.7%	8.4%	8.4%	7.9%	7.2%	6.0%	5.8%	6.0%
Change in no. of Employees	-11.6%	55.2%	6.5%	-23.6%	8.0%	2.0%	0.0%	0.0%
Wage inflation	51.3%	-19.5%	1.3%	49.8%	29.1%	5.0%	0.0%	2.0%
Rate on interest income	0.0%	4.5%	5.2%	8.0%	6.2%	5.5%	4.5%	4.5%
Rate on interest expense	33.6%	152.1%	186.8%	33.7%	5.3%	10.0%	9.0%	8.5%
P&L tax rate	34.4%	35.2%	32.1%	35.4%	34.3%	34.0%	34.0%	34.0%
Dividend tax rate	15.4%	17.0%	17.0%	16.6%	16.2%	16.2%	16.2%	16.2%
Excise duty	4.1%	3.4%	2.9%	2.3%	2.7%	2.7%	2.7%	2.7%
Dividend payout ratio	36.9%	32.8%	20.6%	41.3%	28.1%	30.5%	37.1%	37.3%



Balance Sheet (INR m)	FY07a	FY08a	FY09a	FY10a	FY11a	FY12e	FY13e	FY14e
Share Capital	238	238	238	238	238	238	238	238
Reserves & Surplus	5,661	7,357	9,675	10,544	12,911	15,187	16,994	18,871
Shareholders Equity	5,899	7,595	9,913	10,782	13,149	15,425	17,233	19,109
Minorities	0,000	0	0,510	94	520	475	430	385
Total Equity	5,899	7,595	9,913	10,876	13,669	15,900	17,662	19,494
Secured Loans	(22)	0	0	(80)	(1,476)	(1,476)	(1,476)	(1,476
Unsecured Loans	Ó	0	(41)	Ò	(4)	(4)	(4)	(4
Total Debt	(22)	0	(41)	(80)	(1,479)	(1,479)	(1,479)	(1,479
Cash & Equivalents	972	580	3,696	6,702	7,496	7,090	7,836	10,982
Net (Debt)/Cash	951	580	3,655	6,623	6,017	5,611	6,356	9,503
Tangible assets	1,651	2,835	4,713	5,174	6,252	6,837	7,091	7,327
Intangible assets	20	43	198	195	1,601	1,401	1,237	1,103
Capital Work-in-progress (CWIP)	118	607	177	115	354	354	354	354
Deferred tax assets	0	0	0	0	0	0	0	(
Investments	5,741	5,601	1,433	3,703	2,415	2,555	2,705	2,880
Other assets Total Fixed Assets	0 7,531	0 9,086	0 6,520	0 9,187	0 10,622	0 11,147	0 11,388) 11,665
Inventories	2,108	2,100	2,805	2,563	3,657	4,137	3,732	3,745
Sundry debtors	4,000	5,305	5,719	7,984	10,672	11,820	10.663	10,700
Loans & advances	2,016	2,189	2,224	3,282	3,596	4,137	3,732	3,745
Sundry creditors	(2,931)	(4,552)	(4,199)	(7,583)	(8,922)	(10,047)	(9,064)	(9,095
Customer advances	(6,041)	(4,798)	(6,145)	(11,085)	(10,657)	(10,047)	(7,997)	(9,630
Other receivables	516	467	1,765	2,352	2,498	2,955	2,666	2,675
Other payables	0	0	0	0	0	0	0	· (
Total Working Capital	(333)	711	2,169	(2,486)	844	2,955	3,732	2,140
Other current assets	221	324	410	594	731	731	731	731
Other current liabilities	(1,710)	(1,556)	(1,545)	(1,452)	(1,998)	(1,998)	(1,998)	(1,998
Banker's acceptances	(149)	(85)	(180)	(368)	(615)	(615)	(615)	(615
Net current assets	(1,970)	(605)	854	(3,713)	(1,039)	1,072	1,849	257
Provisions	(545)	(1,372)	(957)	(1,078)	(1,633)	(1,633)	(1,633)	(1,633
Deferred tax liability	(68)	(134)	(160)	(144)	(298)	(298)	(298)	(298)
Other LT (liabilities)/assets	1	40	1	0	0	0	0	(
Net Assets	5,899	7,595	9,913	10,876	13,669	15,900	17,662	19,494
Key balance sheet ratios	FY07	FY08	FY09	FY10	FY11	FY12e	FY13e	FY14e
Gearing	-16%	-8%	-37%	-61%	-44%	-35%	-36%	-49%
Gearing incl Acceptances	-14%	-7%	-35%	-58%	-40%	-31%	-33%	-46%
Leverage	0.8	0.9	0.6	0.4	0.6	0.6	0.6	0.5
Leverage incl Acceptances	0.9	0.9	0.6	0.4	0.6	0.7	0.7	0.5
Interest Cover (on EBIT) Net debt to EBITDA	174.9 (0.3)	(216.9) (0.1)	(52.3) (0.7)	(8.9) (1.7)	(12.9) (1.0)	(19.3) (1.0)	(20.8) (1.3)	(14.4 (1.9
Fixed Asset turns	14.2	13.0	7.9	6.2	7.7	6.8	6.0	6.0
Asset (CE) turn	49.5	23.1	7.5	7.8	10.3	6.3	4.8	4.9
Total Working Capital Days	(32)	(19)	(5)	(80)	(22)	(10)	(4)	(15
Inventories	34	22 50	30	29	25 74	26 75	26 75	20
Sundry Debtors	64	<i>56</i>	61	89 27	74 25	75 26	75	73
Loans & advances	32	23	24	37	25 17	26 10	26	20
Other receivables Sundry Creditors	8 74	5 75	19 74	26 137	17 90	19 93	19 94	19 9
Customer advances	74 96	75 51	74 66	137 123	90 74	93 64	94 56	68 68
Other payables	0	0	0	0	0	0	0	(
Working Capital as % sales	-1.5%	2.1%	6.4%	-7.6%	1.6%	5.1%	7.2%	4.1%



Cash Flow Statement (INR m)	FY07a	FY08a	FY09a	FY10a	FY11a	FY12e	FY13e	FY14e
EBITDA	2,889	4,267	4,219	3,947	5,740	5,660	4,986	5,063
Adjusted for:	,	ŕ	,	,	ŕ	•	•	•
Unrealized FX (gains)/losses	0	0	0	0	0	0	0	0
Loss on sale of fixed assets	9	11	13	9	6	0	0	C
Other non-cash exceptionals	2	143	213	274	(37)	0	0	Č
Change in Working Capital	1,644	(1,531)	(1,366)	3,709	(910)	(2,111)	(777)	1,592
Tax paid	(1,132)	(1,500)	(1,506)	(1,439)	(1,911)	(1,791)	(1,550)	(1,621)
Net Financials	326	347	270	407	452	253	203	298
Others	5	(4)	(3)	(183)	(1,557)	0	0	200
Cash flow from operations	3,742	1,733	1,840	6,725	1,782	2,011	2,862	5,332
Capital Expenditure	(660)	(1,918)	(1,915)	(840)	(1,507)	(1,170)	(870)	(870)
Disposals	Ò	Ó	Ó	Ó	Ó	Ó	Ò	Ò
Change in other assets	(4)	(7)	(7)	(7)	(6)	0	0	0
Free cash flow (FCF)	3,078	(192)	(82)	5,878	270	841	1,992	4,462
Dividends	(924)	(362)	(1,114)	(696)	(695)	(1,246)	(1,246)	(1,316)
FCF post dividend	2,154	(554)	(1,196)	5,181	(425)	(406)	745	3,146
Acquisition - Subs/Assoc/Investments	(1,757)	181	4,228	(2,263)	(544)	0	0	C
Change in debt	5	(22)	41	39	1,166	0	0	0
Share buyback/issue	(1)	0	0	0	0	0	0	C
Others	(3)	(19)	43	49	423	0	0	0
Net cash flow	398	(414)	3,116	3,006	620	(406)	745	3,146
Key cash ratios	FY08	FY08	FY09	FY10	FY11	FY12e	FY13e	FY14e
Cash tax rate	37.3%	33.7%	35.6%	35.9%	33.3%	34.0%	34.0%	34.0%
Change in WC as % sales	7.2%	-4.5%	-4.0%	11.3%	-1.7%	-3.7%	-1.5%	3.1%
Capex to depreciation	3.4	8.3	5.4	1.9	2.8	1.5	1.1	1.1
Capex as % sales	2.9%	5.6%	5.6%	2.6%	2.9%	2.0%	1.7%	1.7%
Operating cash conversion	138.9%	42.9%	47.6%	191.8%	34.3%	41.2%	68.0%	124.1%
FCF Yield	7.8%	-0.2%	-0.2%	9.7%	0.3%	1.5%	3.5%	7.9%
FCF Yield post dividend	5.4%	-0.7%	-3.1%	8.5%	-0.5%	-0.7%	1.3%	5.6%
Profitability - ROCE	FY07	FY08	FY09	FY10	FY11	FY12e	FY13e	FY14e
Clean EBIT	2,704	4,046	4,770	3,515	5,223	4,875	4,207	4,295
Less: Associate/Div Income	0	0	0	0	0	0	0	C
Tax rate	34.4%	35.2%	32.1%	35.4%	34.3%	34.0%	34.0%	34.0%
Operating Return (OR)	2,704	4,046	4,770	3,515	5,223	4,875	4,207	4,295
Post tax OR	1,772	2,620	3,241	2,272	3,432	3,217	2,776	2,835
Equity	5,899	7,595	9,913	10,876	13,669	15,900	17,662	19,494
Net Deferred tax liability	68	134	160	144	298	298	298	298
Provisions	545	1,372	957	1,078	1,633	1,633	1,633	1,633
Debt	22	0	41	80	1,479	1,479	1,479	1,479
Bank's Acceptances Less:	149	85	180	368	615	615	615	615
Cash & Egv	972	580	3,696	6,702	7,496	7.090	7,836	10,982
Trade Investment/Associates	5,741	5,601	1,433	3,557	2,268	2,408	2,558	2,733
Capital Employed	(31)	3,004	6,122	2,286	7,931	10,427	11,294	9,804
 Pre-tax ROCE	585%	272%	105%	84%	102%	53%	39%	41%
ROCE	384%	176%	71%	54%	67%	35%	26%	27%



Notes



Disclosure appendix

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The following analyst(s), economist(s), and/or strategist(s) who is(are) primarily responsible for this report, certifies(y) that the opinion(s) on the subject security(ies) or issuer(s) and/or any other views or forecasts expressed herein accurately reflect their personal view(s) and that no part of their compensation was, is or will be directly or indirectly related to the specific recommendation(s) or views contained in this research report: Rahul Garg

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HSBC believes that investors utilise various disciplines and investment horizons when making investment decisions, which depend largely on individual circumstances such as the investor's existing holdings, risk tolerance and other considerations. Given these differences, HSBC has two principal aims in its equity research: 1) to identify long-term investment opportunities based on particular themes or ideas that may affect the future earnings or cash flows of companies on a 12 month time horizon; and 2) from time to time to identify short-term investment opportunities that are derived from fundamental, quantitative, technical or event-driven techniques on a 0-3 month time horizon and which may differ from our long-term investment rating. HSBC has assigned ratings for its long-term investment opportunities as described below.

This report addresses only the long-term investment opportunities of the companies referred to in the report. As and when HSBC publishes a short-term trading idea the stocks to which these relate are identified on the website at www.hsbcnet.com/research. Details of these short-term investment opportunities can be found under the Reports section of this website.

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Rating definitions for long-term investment opportunities

Stock ratings

HSBC assigns ratings to its stocks in this sector on the following basis:

For each stock we set a required rate of return calculated from the cost of equity for that stock's domestic or, as appropriate, regional market established by our strategy team. The price target for a stock represents the value the analyst expects the stock to reach over our performance horizon. The performance horizon is 12 months. For a stock to be classified as Overweight, the potential return, which equals the percentage difference between the current share price and the target price, including the forecast dividend yield when indicated, must exceed the required return by at least 5 percentage points over the next 12 months (or 10 percentage points for a stock classified as Volatile*). For a stock to be classified as Underweight, the stock must be expected to underperform its required return by at least 5 percentage points over the next 12 months (or 10 percentage points for a stock classified as Volatile*). Stocks between these bands are classified as Neutral.

Our ratings are re-calibrated against these bands at the time of any 'material change' (initiation of coverage, change of volatility status or change in price target). Notwithstanding this, and although ratings are subject to ongoing management review, expected returns will be permitted to move outside the bands as a result of normal share price fluctuations without necessarily triggering a rating change.



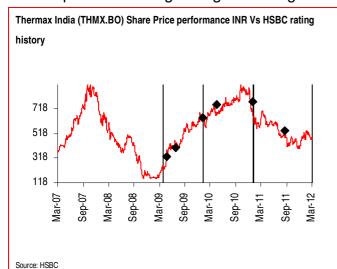
*A stock will be classified as volatile if its historical volatility has exceeded 40%, if the stock has been listed for less than 12 months (unless it is in an industry or sector where volatility is low) or if the analyst expects significant volatility. However, stocks which we do not consider volatile may in fact also behave in such a way. Historical volatility is defined as the past month's average of the daily 365-day moving average volatilities. In order to avoid misleadingly frequent changes in rating, however, volatility has to move 2.5 percentage points past the 40% benchmark in either direction for a stock's status to change.

Rating distribution for long-term investment opportunities

As of 29 March 2012, the distribution of all ratings published is as follows:

Overweight (Buy)	48%	(26% of these provided with Investment Banking Services)
Neutral (Hold)	37%	(23% of these provided with Investment Banking Services)
Underweight (Sell)	15%	(17% of these provided with Investment Banking Services)

Share price and rating changes for long-term investment opportunities



From	То	Date
Neutral (V)	Underweight (V)	20 April 2009
Underweight (V)	Neutral (V)	02 February 2010
Neutral (V)	Neutral	28 January 2011
Neutral	N/A	28 March 2012
Target Price	Value	Date
Price 1	330.00	21 May 2009
Price 2	400.00	23 July 2009
Price 3	645.00	02 February 2010
Price 4	750.00	13 May 2010
Price 5	780.00	28 January 2011
Price 6	540.00	20 September 2011
Price 7	N/A	28 March 2012



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- 9 A covering analyst/s or a member of his/her household has a financial interest in the securities of this company, as detailed below.
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Additional disclosures

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- 2 All market data included in this report are dated as at close 28 March 2012, unless otherwise indicated in the report.
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