17 December 2013

Update | Sector: Capital Goods

Thermax

BSE SENSEX	S&P CNX
20,660	6,155

Bloomberg	TMX IN
Equity Shares (m)	119.2
52-Week Range (INR)	695/526
1,6,12 Rel. Perf. (%)	8/4/4
M.Cap. (INR b)	81.3
M.Cap. (USD b)	1.3

Valuation summary (INR b)

Y/E March	2014E	2015E	2016E
Net Sales	53.7	58.2	70.0
EBITDA	4.8	5.6	7.0
Adj PAT	3.0	3.5	4.7
EPS (INR)	25.2	29.5	39.4
EPS Gr. (%)	(6.6)	17.0	33.3
BV/Sh. (INR)	177.1	197.3	223.8
RoE (%)	15.3	16.1	19.0
RoCE (%)	12.8	14.2	17.2
Payout (%)	32.4	31.7	32.7
Valuations			
P/E (X)	27.0	23.1	17.3
P/BV (X)	3.9	3.5	3.0
EV/EBITDA (X)	15.8	13.3	10.4
Div Yield (%)	1.0	1.2	1.6

CMP: INR685 **TP: INR850** **Buy**

'*Strategic*' re-orientation

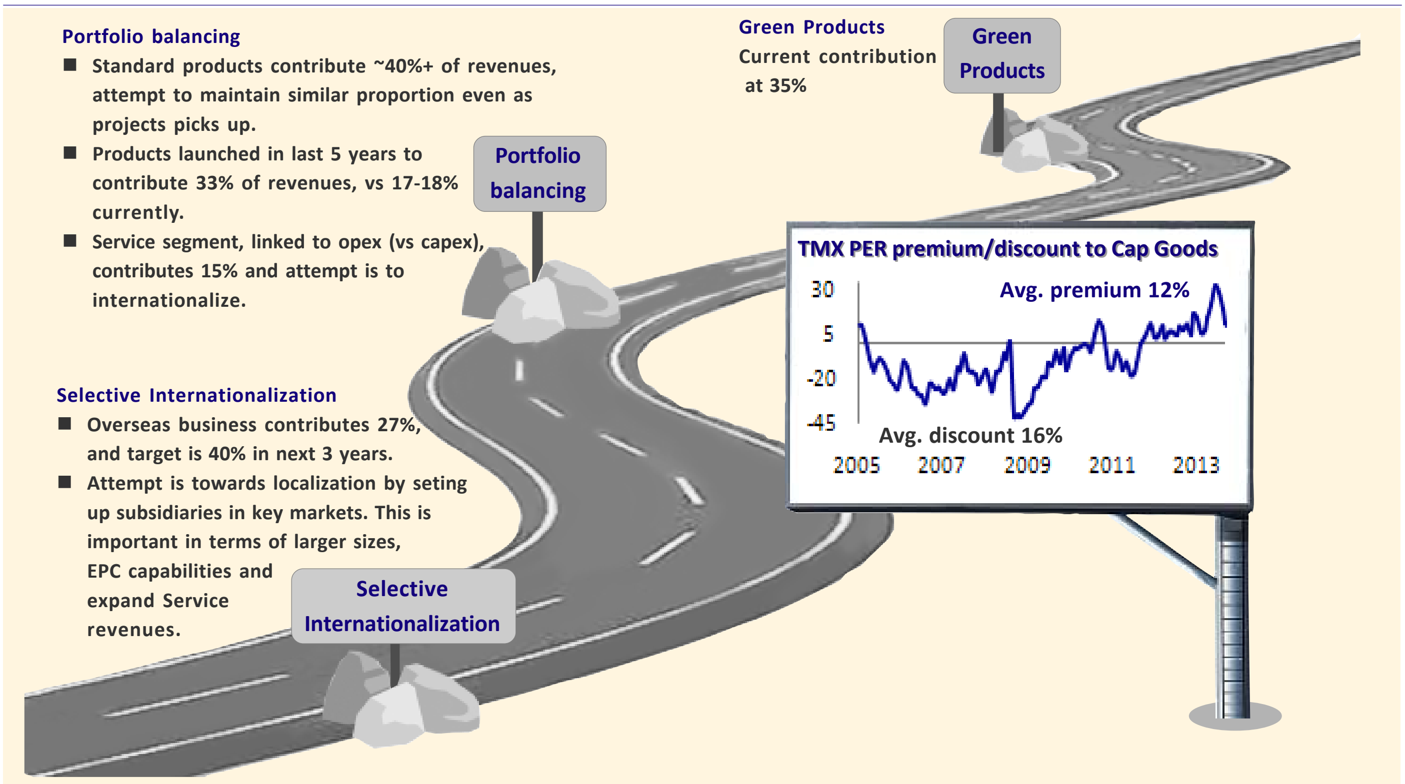
Highlighting broad contours of the Journey

Over the last few years, TMX has focused on re-orientation of its business model. As defined by Michael Porter, '*Strategy*' explains how an organization, faced with competition, will achieve sustainably superior performance. We highlight the broad contours of this journey for TMX, based on our understanding from various published documents and also the management interactions.

- **Portfolio balancing to combat the cyclical nature of project business: i) Growing standard products, ii) Capturing the revenue spends of customers, iii) Seeding new businesses and product portfolios.**
- **Selective internationalization: i) Enhance presence in select markets through localization ii) Targeting New Geographies.**
- **Increase the contribution of Green products from 35% of the revenues currently.**

Maintain Buy: Strong commitment to the '*Strategy*' and also the journey till date (as enunciated in exhibit below), has improved the investor perception about 'sustainable superior performance' and hence premium valuations. TMX is a key beneficiary of several structural trends: energy efficiency, stringent environment compliance, green products, and currency depreciation. Near term headwinds exist in terms of muted domestic order intake and execution constraints. Maintain Buy, with an 18-month price target of INR850 (20x FY16E at INR762/sh and INR86/sh in subsidiaries).

Journey till date on the 'Strategy': Improved perception about 'sustainable superior performance' has led to premium valuations



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#1 Portfolio balancing: combat cyclical nature of project business

Portfolio balancing is an important priority, given that increased contribution from projects business in FY10, had resulted in revenue and earnings volatility in a turbulent environment. Hence, the focus is on increasing the contribution of Standard Products (currently ~40% of revenues), in segments like Baby boilers, Air Pollution, Chemicals and Water. These are largely catalogue based products and involve very minimum design customization. Also, attempt has been to increase the contribution of service business (15% of revenues currently), and this also acts as a key balancing mechanism, given that the business driver here is 'opex', and not 'capex'.

TMX MD and CEO, MS Unnikrishnan was honored with the '**Asia Innovator Award**' at the 11th CNBC Asia Business Leaders Awards in 2012

The citation notes that he was awarded "for his inventive thinking in business and his leadership in an organization that has innovation at its core"

Portfolio balancing to combat the cyclical nature of project business:

i) Increasing contribution of standard products

ii) Capturing the revenue spends of customers

iii) Seeding of new businesses and product portfolios

Journey so far:

- Standard products contribute ~40%+ of the consolidated revenues, and attempt is to maintain the same proportion even as project business picks up in future.
- New products launched in last 5 years to contribute 33% of revenues, vs 17-18% contribution currently.
- Share of Service sector, which is largely linked to opex (vs capex), currently stands at 15% and attempt is to internationalize this business.

Management Commentary on Portfolio balancing: Product vs Project

The way you would have looked at in 2010, that we were almost at 67% to 70% of projects and the balance was products and services. It is now moving in the other direction and it's bringing in stability to the organization.

Now as the things are, project businesses can grow when the reversals in the economy happens because then the larger ticket size projects start moving. Are we going to then capitalize on that and have again the reversal happening in such a way that we become 75% projects and 25% products?

Internally we are realizing that we're going to have certain benchmarks here for it because project is too cyclical. We love it, but we don't want to have such an affair or romance with that we get married to that permanently. So we want to have both of them running. That's the current decision. So that's the cross-sectional change.

A culture of Innovation: Targeting 33% revenue contribution from new product launches in last 5 years (vs 17-18% currently)

The investments made in product development are yielding new growth avenues, with 11 new product lines commercialised in the last three years. Several new products were launched in FY13, including Hybrid Chiller and Dry Coolers, solid fuel fired hot air generator, smaller capacity CFBC boiler, etc. Chemicals division has successfully transferred technology for construction chemicals.

Several of these launches will take time to become a meaningful contributor to the revenues. The objective is to highlight the 'culture of innovation'

Key product launches over the last 2 years

- Launched **Triple Effect Absorption Chillers** in 2012, that use 35% less steam to generate comparable levels of cooling. The business proposition has been expanded to cover Industrial and commercial customers looking to air-condition multiple locations from a centralized source. In India, 40-45% of the electricity in future will be utilized for air conditioning. Solar and Biomass provide options to generate steam for operating chillers. Industrial offices can go for this product in future, and progressively the management believes that a new application is being created for industrial air conditioning and chilling purposes.
- Launched **Hybrid Chiller** that combines absorption and compression technologies to provide sub-zero temperature for process cooling and achieve significant power reduction.
- **'Dry Coolers'** were launched which are convective heat transfer machines and substitute conventional wet cooling towers. Dry Coolers utilise air as a medium for heat transfer unlike cooling towers that use water, hence these have potential demand from industries operating in areas with water scarcity.
- The Heating business group launched a **solid fuel fired hot air generator called 'Aquaerotherm'** to provide clean hot air for process heating and drying. The group has already supplied several units to tea estates.
- **A smaller capacity CFBC boiler** was also launched making the benefits of this technology available to medium sized industries.
- **Chemicals division** has successfully transferred technology for construction chemicals from Tecnochem Italiana SpA during FY13 while seed marketing and product certification was in an advanced stage of completion.
- In Muncipal Waste Management, TMX has indigenously developed **air cooled pusher grate**, which processes municipal waste (GCV of 1500kcal/kg) to saleable reuse derived fuel (GCV ~3500kcal/kg).

Commercialized 11 new products over last 3 years

Key new product launches in FY12 / FY13

Year	Product Launch
FY12	Triple Effect Absorption Chiller
FY12	Solar-Biomass Hybrid Cold storage
FY13	Hybrid Chiller
FY13	Smaller capacity CFBC boiler
FY13	Dry Coolers
FY13	Solid fuel fired hot air generator
FY13	Performance Chemicals
FY13	Air Cooled Pusher Grate (Muncipal Waste)

Source: MOSL, Company

The management, in the recent analyst meet, also highlighted some new products under development:

- **Small coal boilers,** say upto 0.5-1 tons. Today, small boilers in the range of 2 tons exist for gas / oil as fuels. Few units have already been sold.
- Working on a product for **bio-methanation technology** for canteen waste, this would generate biogas, and thus displace LPG in canteens. India has 40,000 canteens and the company has already sold 4-5 such products.

Future Plan of Action in R&D

TMX is focusing its R&D efforts towards i) Renewable energy ii) Energy Efficiency iii) Waste-to-energy products and iv) Wastewater treatment systems.

- **Renewable energy:** Solar energy (both concentrated solar thermal and photovoltaic), Biomass and Geothermal will gain importance in the coming years. Solar thermal technologies for power, heating, cooling and low temperature waste heat recovery will continue to be thrust areas. As part of its strategy, the company intends to invest in new applications in photovoltaic (PV) systems.
- TMX will invest in areas like **energy efficient technologies** for commercial buildings, fuel cells, absorption cooling systems, etc.
- In the environment sector, TMX is focusing on **waste-to-energy products** and improved **wastewater treatment systems** to meet stringent environmental regulations.

Renewable energy: Global Number 1 in distributed Solar Heating, Cooling & Power for industrial / commercial (Concentrated Solar Power)

The management expects triple digit revenues in 3 years (~INR1b) and the business could be reasonably profitable. We understand that FY14 revenues should be ~USD5-8m

Solar thermal plates

- In **Solar Heating, Cooling and Power**; TMX has completed 63 installations till date, and is globally positioned as the Number 1 player. The management believes that with increased diesel prices, the product is reaching commercial viability and requires minimal government subsidy. In June 2013, it commissioned the first commercial solar based cooling project for Honeywell Technologies Automation Lab in Hyderabad. The project included 128 parabolic trough collectors that are integrated with a double effect hot water fired chiller of 100 TR Capacity. TMX also commissioned a roof top solar installation for lighting at Unilever's industrial facility at Khamgaon, Maharashtra.
- This could soon find increased applications for even commercial offices, retail malls, hotels, hospitals, etc. Industries that are using fuel oil / diesel for steam purposes can also partly convert to solar. It also opens up new applications in hybrid solutions; for instance, every baby boiler that TMX sells can possibly be integrated with solar. For Solar PV, TMX is again targeting rooftop applications and has tied with Sun Edison.
- The management expects triple digit revenues in 3 years (~INR1b) and the business could be reasonably profitable. We understand that FY14 revenues should be ~USD5-8m.
- The management believes that solar requires a different mindset and distributed generation will be the key driver. In thermal, the reason for moving to large IPP projects was because transmitting power was cheaper than coal and also issues surrounding logistics and environment regulations; but in solar, sunlight is distributed and hence central plants may not be the optimal solutions.

Water, CFBC boilers, Waste Heat Recovery: Interesting growth possibilities

- **Water business:** The management recently stated that the target is to double revenues to ~INR10b in the next 4-5 years vs current levels of INR4.4b. The scale up will be led by industrial products and applications. Also, we understand that TMX has a market share of ~30-35% in most of the segments it operates into, except water where its market share stands at ~10-15%. Also, this possibly is the only segment in the portfolio which is yet to be taken international.

In India, we understand that TMX has a 60%+ share in the domestic CFBC market

- **CFBC Boilers:** The CFBC technology is ideal for Indian coal which has high ash content. Increased adoption of this technology will also be driven by environmental stipulations, as it will be possible to set up coal based projects without coal washery. This business had order intake of INR10b in a good year and could again possibly reach that quantum. This is also advantageous for imported coal, particularly from Indonesia, which has high moisture content and thus needs 'pre-heating'. Also, in CFBC, smaller sizes of IPPs are possible and thus the market can expand. CFBC technology can also migrate to supercritical and will be a gamechanger in the Indian power sector. The management talked about few projects in this segment: Poland (400MW, Foster Wheeler) and Korea (2X700MW). In India, we understand that TMX has a 60%+ share in the domestic CFBC market, and has a technology edge given the U-beam technology which is 10-15% cheaper on capex and opex over cyclone technology.

1m tons of cement will require ~5-7MW of WHR plant, at a cost of ~INR80-100m/MW.

- **Waste Heat Recovery:** We understand that the contribution of this business to revenues stood at ~INR4-5b, and has now declined given constrained industrial production. Energy pricing in the country has undergone a structural shift (electricity prices up 15-20% over last 18 months) driving demand for energy efficiency products. Thus, we believe that this business will be an early cycle beneficiary of any pick up in investment cycle. The management recently stated that in cement, there is a possible demand for ~15-20 such plants with improvement in capacity utilization. We understand that 1m tons of cement will require ~5-7MW of WHR plant, at a cost of ~INR80-100m/MW.

Incubating Rental model: charging per ton of steam supplied

TMX has incubated the business model to focus on BOOT plants in steam supply in segments like biomass, Waste Heat Recovery, Distillery Spent Wash, Triple Effect Absorption Chillers, etc. Till date, the business has been largely focused on biomass projects and a pick up is expected in FY15. Also for the Triple Effect Absorption Chiller, the business proposition has been expanded to cover Industrial and commercial customers looking to air-condition multiple locations from a centralized source; and entails the rental business model of charging customers based on per unit of cooling. From revenues of INR112m in FY13, the revenues are expected at INR1b+ in FY15.

From revenues of INR112m in FY13, the revenues are expected at INR1b+ in FY15.

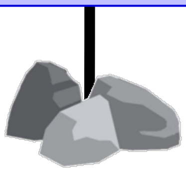
TMX Onsite Energy Solutions: Key Financials (INR M)

INR M	FY11	FY12	FY13
Revenues	61.4	92.3	112.5
PBT	9.0	16.5	23.5
PAT	6.0	11.2	13.2

Source: MOSL, Company

#2 Selective Internationalization

Selective Internationalization



The strategy for exports is now being reoriented through **increased Localization by setting up subsidiaries in overseas markets**. This is important for the next leg of growth to expand operations in terms of larger sizes of products, consolidate EPC capabilities and also possibly expand service revenues:

- **Product business** i) In South East Asia, the attempt is to localize part of the operations in Indonesia, Malaysia and Philippines through setting up subsidiary companies ii) In Africa, offices have been opened and that is now being converted into subsidiaries; the export strategy from India will be continued in the interim period iii) In Middle East, the strategy is exports from India.
- **Projects business:** The strategy till date was exports out of India and supervision of the construction from India. Now the strategy is being re-oriented as exports of key manufactured products from India, local purchases of bought out items (eg pumps, motors, etc) and supervision of the construction locally.

Journey so far: *Overseas business contributes 27% of consolidated revenues, and target is 40% in next 3 years.*

Overseas Revenues as % of Consolidated revenues increasing

INR M	FY11	FY12	FY13	FY14E	FY15E	FY16E
TMX Europe	308	353	435	609	822	863
TMX USA	523	644	663	729	802	882
TMX Zheziang	214	436	707	1061	1273	1401
Danstoker	0	5131*	3603	4684	5854	7318
Exports (Standalone)	10,660	11,430	9,839	11,039	13,247	17,221
Total	**11,705**	**17,994**	**15,247**	**18,122**	**21,999**	**27,686**
Consolidated Revenues	53,921	61,698	55,656	55,131	59,805	71,728
Overseas (%)	**21.7**	**29.2**	**27.4**	**32.9**	**36.8**	**38.6**

*Note: FY12 is 18 months period for Danstoker

Source: MOSL, Company

Project business is an important driver, to be supported by increased localization

Post the initial success in EPC projects in the overseas market, TMX is now expanding presence both in terms of the size and complexity of the business. South East Asia and Africa are the key locations where the company is expanding the operations for the larger sizes of Boilers, Heaters, EPC, etc; and we understand that this is an important agenda for the localization plan. Project work needs contact points and hence establishment of offices in countries like Kenya, Nigeria and Egypt, the intake should increase.

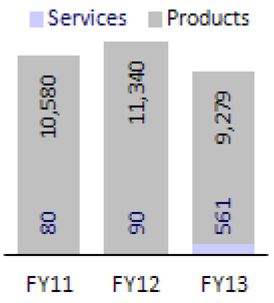
EPC contracts an important driver, post the initial success

Company	Country	MW	Industry
Lamson Inc	Philippines	3.5	Corn Starch
Bataan 2020	Philippines	13	Paper
Under execution			
National Cement Company	Yemen	28	Cement
Yemen Co Sugar Refining	Yemen	14	Sugar
Dangote Industries	Zambia	30	Cement
Austcane Energy	Australia	22	Sugar

Source: MOSL, Company

Ramp up in Services business; revenues up 6x YoY in FY13; again to be supported by localization

Export Revenues (INR M)



In FY13, the share of services business has increased from 5% of revenues to 8% now. Also, the contribution of overseas revenues improved to INR560m in FY13 from INR90m in FY12; and thus indicates fructification of efforts to internationalize the business.

Management Commentary on internationalization of service business

We are also taking service business out of India. We've already started posting people in two markets, Middle East and South East Asia and I would expect that post two years of work to be done in that area, we can also expect improved income.

HRSG could be a key product; especially post tie-ups with Siemens and Shell

- Heat Recovery Steam Generator (HRSG) is expected to be an important contributor to export growth over the medium term. In the past, TMX had supplied HRSGs to Nigeria and Netherlands, which were critical projects competing with the best in the world.
- In FY13, TMX was invited by **Saudi Aramco**, along with six other European companies (including Siemens, Foster Wheeler, Macchi, Nem & Cerrey) for a discussion on "standard value engineering for HRSG"; and this clearly demonstrates the global positioning of TMX in this product.
- Over the past 3 years, TMX has i) registered with **Siemens** as their global supporting vendor for the EPC bids globally, and this arrangement opens up interesting opportunities in US given the shale gas discoveries ii) signed a five year Enterprise Framework Agreement with **Royal Dutch Shell** to supply products and services to its oil and gas operations worldwide; and TMX qualifies to be a key supplier of HRSG and water tube boilers. We believe that both these tie-ups present strong growth opportunities, and the initial success is possibly expected in 2HFY14/early FY15.
- Our industry interactions suggest that global market for HRSG is estimated at ~180-200 units per annum and the approx market size is expected at USD2b+. TMX is the dominant player in India with a market share of ~60-70% in the segment. Also globally, we understand that TMX is amongst the Top 10 players in this segment. Recently, TMX announced INR2.7b order for three HRSG from Reliance Industries for the captive power plant at Jamnagar.

Management Commentary on HRSG (arrangement with Shell)

Have a firm enquiry now, so we'll have to compete with the other global approved companies (two to four players). So should expect at least some traction in the Q3 or Q4 of incoming orders.

TMX: Strong positioning in Global HRSGs

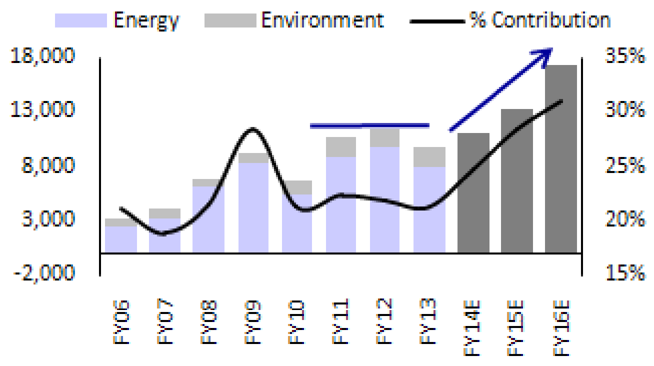
Year	Company	Remarks
2013	Saudi Aramco	Invited, with Siemens, Foster Wheeler, Macchi, Nem & Cerrey on "standard value engineering for HRSG"
2012	Shell	Five year Enterprise Framework Agreement; qualifies to be a key supplier of HRSG and water tube boilers
2011	Siemens	Registered as one of its global supporting vendor for HRSG portion EPC bids

Source: MOSL, Company

Exports: expect FY14 to be inflexion point

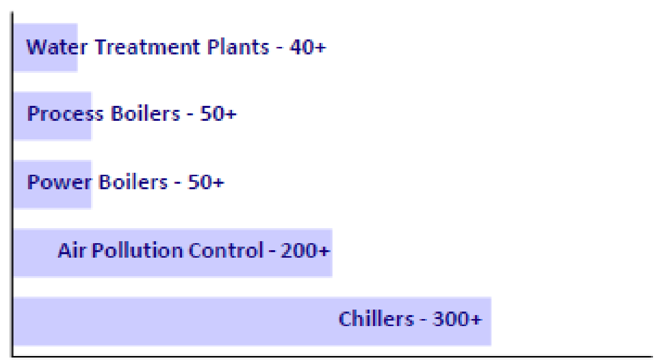
In the standalone business, TMX derives 22% of its revenues from exports (including deemed exports), and this percentage has been fairly stable over the last decade. Given the access to new products and new markets, we expect the contribution of exports to improve meaningfully to 28% of revenues in FY15. Exports revenues in 9mFY14 are up 17% YoY (and largely to Middle East, SE Asia and Africa); on the back of a 40% YoY increase in order intake in FY13.

Expect FY15E to be an inflexion point for exports (INR M)



Source: Company, MOSL

International installations by TMX (cumulative, till 2012)



Source: Company, MOSL

Expanding geographic base: Africa and Europe emerging as important markets (# Rank in TMX portfolio)

Source: MOSL, Company

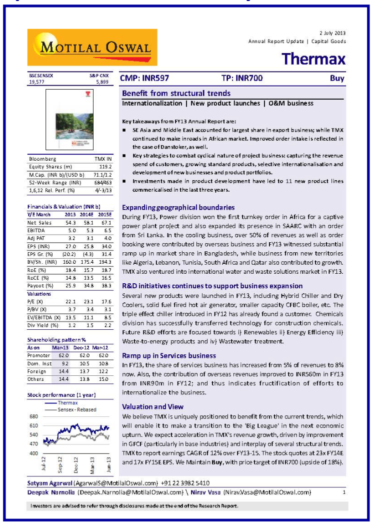
Fireside (In-house Magazine, mid 2013): "Cross Sell"

- TMX bagged an order from Hamlin Industrial Corporation in Phillipines for an integrated utility solution, which encompassed boiler along with emission control and water treatment systems for the textile plant. TMX was chosen over Chinese and Filipino competition because of the ability to **"cross sell"**. This was also the first such instance for TMX in SE Asia, and would enable to position the brand as an integrated solution provider with a strong technology base.
- **Boiler and Heater Business** organized a conference with its business associates and international regional managers in May 2013, which was attended by

participants from various countries, including Japan, Korea, Egypt, Saudi Arabia, Kuwait, Oman, Spain, Italy, Israel, Portugal, UAE, Bangladesh, etc. The brainstorming was around a strategic business plan to increase exports and revenues.

- TMX is tapping the overseas markets to expand the **air pollution control business**. The company had executed projects in Egypt and Middle East, and has also focused on SE Asia and North Africa. Latin America is also a chosen market for FY2014.
- TMX has signed a MoU with Kerujuteeran QKS Sdn Bhd (KQKS) to **expand business in Malaysia**. MOU establishes a strategic alliance to create a robust supply chain for range of products/services.

Please refer to the Annual Report update released on 2 July 2013


2 July 2013
Annual Report Update | Capital Goods
Thermax
CMP: INR597 TP: INR700 Buy
Benefit from structural trends
Internationalization | New product launches | O&M business

Takeaways from FY13 Annual Report: Initiatives to expand presence

- **Power:** TMX won the first turnkey order in Africa for a captive power plant project in Zambia while the Power business also expanded its presence in SAARC with an order from Sri Lanka. Post successful completion of a captive cogen plant in Philippines, the company bagged another 20MW biomass based power project.
- **Boiler and Heater:** This segment is establishing its foothold in Thailand where it has commissioned three bagasse fired boilers and is concluding an order for a fourth boiler.
- **Cooling:** In this segment, over 50% of revenues as well as order booking were contributed by overseas business. TMX bagged an order to supply vapour absorption heat pumps to a district heating plant in Denmark, one of the largest waste-to-energy projects in Europe. FY13 also saw substantial ramp up in market share in Bangladesh while business from new territories like Algeria, Lebanon, Tunisia, South Africa and Qatar also contributed to growth. With consolidation in the markets of Africa, Russia and Turkey, the installed base in these regions is set to improve.
- **Heating:** The company won several large orders in which include boilers from a steam and power rental company, a thermosyphon order for the edible oil segment from Indonesia and boilers for polysilicon segment in the Middle East.
- **Water and Waste Solutions:** Thermax ventured into international water and waste solutions market in FY13.

Outlook for Danstoker positive (Readings from Fireside; TMX's in-house magazine)

Danstoker's Managing Director, Jan Enemark, points to a robust performance in FY14 with a candid remark: "The situation has never been so good for us. This winter, we are fully booked and 2013-14 will be a very good year for us".

- In international business, Danstoker has started supplying to Middle East, exploring Chile & South America, and prospecting in North America.
- With TMX, the management states that Danstoker need not worry about financing growth; and is unlike the situation in Europe where many companies are constrained by issues relating to bank finance.
- European Union's Carbon 20 initiative, through which it intends to reduce carbon footprint by 20% by 2020 is a major growth lever for the Danstoker to market its heating products.

- To reduce costs, Danstoker has commenced outsourcing design work to India, with five people working in Pune and expects the number to go up.
- Omnical, the German subsidiary, is passing through a rough patch and will take time to turnaround, but the management is confident of growth in future, especially exports.

Danstoker: Expect meaningful improvement in financials (INR M)

INR M	FY12*	FY13	FY14E	FY15E	FY16E
Revenues	5131	3603	4684	5854	7318
EBIDTA %	8.4%	8.7%	9.0%	10.0%	10.5%
PAT	187	138	227	353	494

*Note: FY12 is 18 months period for Danstoker Source: MOSL, Company

Profitability improvement is being led by turnaround in China subsidiary and improved performance in Danstoker

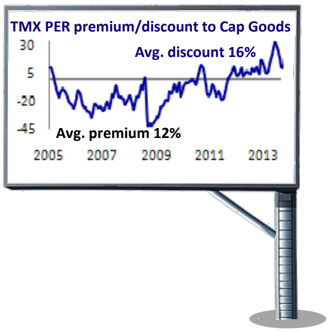
TMX: Expect overseas subsidiaries to contribute 12% of consolidated profits in FY16E

INR M	FY11	FY12	FY13	FY14E	FY15E	FY16E
TMX Europe	29	29	39	55	74	58
TMX USA	2	10	9	12	13	15
TMX Zheziang	(80)	(62)	(87)	(36)	13	14
Danstoker	0	187*	138	227	353	494
Total	**-49**	**164**	**100**	**258**	**453**	**581**
Consolidated PAT	3,818	4,034	3,219	3,008	3,520	4,691
Contribution (%)	**-1.3%**	**4.1%**	**3.1%**	**8.6%**	**12.9%**	**12.4%**

*Note: FY12 is 18 months period for Danstoker Source: MOSL, Company

Maintain Buy, Core portfolio holding

Near term headwinds exist in terms of muted domestic order intake, execution constraints, etc



TMX is benefiting from few structural trends: (1) increased energy pricing (electricity prices up 15-20% over last 18 months) driving demand for energy efficiency products (2) Hunt for alternative energy and TMX derives ~35% of revenues from Green products (3) stringent government regulations and increased environmental concerns (4) currency depreciation is also leading to increased possibilities of exports (currently at 22% of revenues), etc. Near term headwinds exist in terms of muted domestic order intake (run-rate of ~INR6b/qtr excluding the RIL order, vs average of ~INR10b), execution constraints given tight liquidity conditions, etc. Also, for the TMX-Babcock JV, reported financials will continue to remain constrained (we estimate losses at INR1.1b in FY15E).

Strong commitment to the core 'Strategy' and also the journey till date has improved the investor perception about 'sustainable superior performance' and hence premium valuations. Maintain Buy, with an 18-month price target of INR850 (20x FY16E at INR762/sh and INR86/sh in subsidiaries).

TMX has high operating leverage, contribution margins maintained despite pricing pressures

For TMX standalone operations, contribution margins have been fairly in a range of ~30-34%.

- In the recent interactions, the management had stated that possibilities exist for a near doubling of the revenues to ~INR90-100b, without any meaningful addition in terms of capex and employees. The current capacity utilization stands at 80% in the project business and is post increased in-sourcing. Excluding the impact of the same, the capacity utilization is just 65%.
- For TMX standalone operations, contribution margins have been fairly in a range of ~30-34%. This is commendable, given the pricing pressures and has been possible from increased value engineering and efficiency gains (management had quantified the same at ~150-200bps). Thus, we believe that margins could bounce back to a more normative number with better operating leverage.

Contribution margins stable; EBIDTA decline a function of poor operating leverage (%)

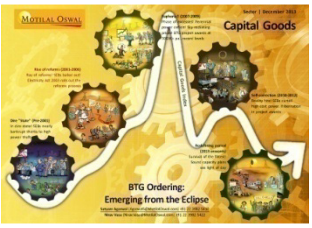
	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14E	FY15E	FY16E
Contribution margins have been stable												
Raw Material	68.9	64.7	67.1	69.1	65.4	66.7	71.3	70.2	68.5	68.5	68.3	68.5
Contribution Margins	31.1	35.3	32.9	30.9	34.6	33.3	28.7	29.8	31.5	31.5	31.8	31.5
EBIDTA volatility led by poor operating leverage												
Staff Costs	9.1	8.9	9.0	7.6	7.9	9.5	**7.7**	**7.4**	**8.7**	**9.6**	9.8	9.1
Other Expenses	14.6	14.3	12.5	11.8	15.4	14.6	11.1	12.1	13.1	13.3	12.9	12.8
EBIDTA	7.4	12.0	11.4	11.5	**11.3**	**9.3**	**9.8**	**10.4**	**9.7**	**8.6**	9.0	9.6

Source: Company, MOSL

Preparedness to capitalize on domestic and global recovery

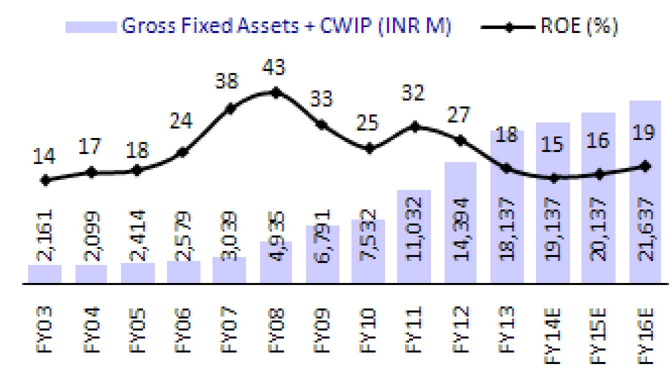
- TMX has created capacities both in terms of manufacturing and manpower, and is thus prepared to capitalize on the recovery in the investment climate. The management stated that the current capacity utilization in standalone business stands at 80%, and excluding the increased levels of in-sourcing stands at 65% (as in an upturn, parts of the manufacturing can be outsourced).

Please refer to: BTG Ordering – Emerging from the Eclipse (Dec 2013)



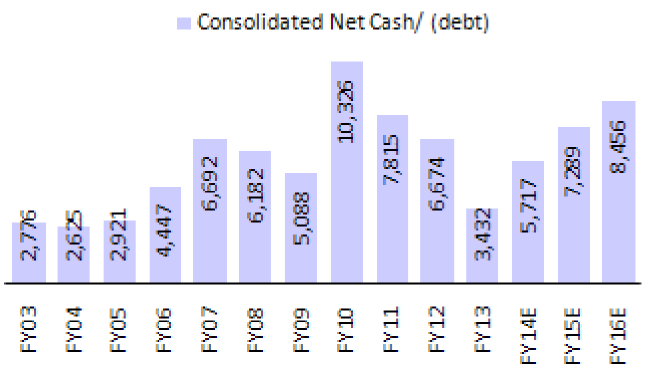
- Key factories commissioned recently includes: Chemicals (FY12, at Jhagadia), Air Pollution Control (FY13, at Solapur) and TMX-Babcock (TBW) supercritical boiler capacity (~3GW, at Shirwal). On a consolidated basis, gross fixed assets plus CWIP has increased from INR6.8b in FY10 to INR18.2b in FY13, largely towards the TBW JV. While the TBW facility will continue to be constrained in the interim period, the management remains quite hopeful in the longer term. The TBW facility has been approved by NTPC and can make pressure parts. Also, for the Babcock and Wilcox orders, the engineering of the project can be done in India. The facility is approved by IBR, American Society of Electrical Engineers, etc.
- The company has also set up ~0.25msf of office space as 'Energy House' and 'Environment House' to house the various businesses, and these modern offices will strengthen the positioning as a Knowledge driven company.
- Danstoker has also recently acquired a boiler manufacturing facility in Denmark on a slump sale basis. This is financed by the retained earnings of Danstoker and is 150kms away from the existing manufacturing plant. In the existing plant, the capacity utilization was running at optimum levels and land was an important constraint. Fabrication work has already commenced at the new facility.

ROEs impacted given under-utilization of fixed assets



Source: Company, MOSL

Consolidated net cash at comfortable levels (INR M)



Source: Company, MOSL

Quotes from the Annual Report (2013): Highlights of the journey...

"International business: an important focus area**
- TMX footprint in most overseas countries is small and we are continuing our efforts to enhance our presence in select international markets.
- International orders contributed a fairly large share of the improved order booking. The superior order intake is reflected in the case of the company's European subsidiary, Danstoker too."

"Increased contribution of 'Standard' Products / Services / Exports: De-risking strategy
- As part of derisking our business, we have created a strategic spread of our product businesses which cater to small-medium enterprises and other process industries. These businesses, which have not been affected as deeply as the projects business, coupled with the service revenue stream and selective internationalisation, have lived up to the very purpose they were seeded for - offsetting the periodic instability caused by project business cycles.
- The divisions handling the standard products performed well, harnessing new opportunities in select international markets. The thrust on Africa, along with South East Asia and the Middle East continues.
- The strategies we put in place - capturing the revenue spend of customers, growing standard products, selective internationalisation and development of new businesses and product portfolios - to combat the cyclical nature of project businesses have helped Thermax remain stable."

"Increased contribution from "Green portfolio"

Last year, your company was able to progress further with its greening portfolio by adding more renewable energy projects. The Power business won projects on biomass and also on waste gas and heat recovery. TMX also successfully executed a technology demonstration project to provide cold storage facilities in rural areas. This system successfully integrates various forms of renewable energy to create a cold storage to Preserve agricultural produce at below 5° C and also generate incidental power. The Solar business of the company has expanded into the solar photovoltaic space and has commissioned a few prestigious projects. On the concentrated solar power (CSP) front, Thermax is executing a major balance of plant for a power block of Asia's largest CSP project under construction."

"New product Launches: Culture of Innovation

The investments made in product development are giving us good dividends, with 11 new product lines commericalised in the last three years. During 2012-13, we introduced some exciting products: a dry cooler that is ideal for industries in water scarce areas - it substitutes conventional cooling towers by utilising air in place of water as a medium for heat transfer; a CFBC boiler for smaller capacities making the benefits of this technology affordable to a larger number of industries. The triple effect chiller introduced in 2011-12 for a technology demonstration project has already found a customer."

"Business outlook remains challenging
- Your company expects challenging conditions to continue in 2013-14 too. The domestic market conditions are expected to remain the same. While the South East Asia, Middle East and African markets are not displaying any signs of slow down, competition has intensified in these markets with Korean, Chinese and European firms pitching in for orders.
- The power shortages in many states across the country will compel the revival of captive power generation in the coming year."

Thermax: Operating Martix

INR m	FY11	FY12	FY13	FY14E	FY15E	FY16E
Standalone Order intake	**53,180**	**40,300**	**48,580**	**51,657**	**50,998**	**60,645**
Energy	41,736	28,830	36,550	42,033	39,931	47,917
- Power EPC	15,300	5,169	15,020	7,500	10,000	12,285
- Energy Ex Power EPC	26,436	23,661	21,530	34,533	29,931	35,632
Environment	11,444	11,470	12,030	9,624	11,068	12,728
Order intake (% YoY)	**-8.3%**	**-24.2%**	**20.5%**	**6.3%**	**-1.3%**	**18.9%**
Energy	-10.0%	-30.9%	26.8%	15.0%	-5.0%	20.0%
- Power EPC	-28.5%	-66.2%	190.6%	-50.1%	33.3%	22.9%
- Energy Ex Power EPC	5.8%	-10.5%	-9.0%	60.4%	-13.3%	19.0%
Environment	-1.2%	0.2%	4.9%	-20.0%	15.0%	15.0%
Standalone Revenues	**50,235**	**54,360**	**47,693**	**45,917**	**48,288**	**57,332**
Energy	38,796	41,509	36,383	34,763	38,510	45,578
Environment	11,439	12,851	11,310	11,155	9,778	11,754
% YoY	**54.5%**	**8.2%**	**-12.3%**	**-3.7%**	**5.2%**	**18.7%**
Energy	60.9%	7.0%	-12.3%	-4.5%	10.8%	18.4%
Environment	35.9%	12.3%	-12.0%	-1.4%	-12.3%	20.2%
Standalone Revenues	**50,235**	**54,360**	**47,693**	**45,917**	**48,288**	**57,332**
Domestic (excl Power EPC)	25,350	29,073	29,202	24,358	25,226	30,153
Domestic (Power EPC)	14,225	13,857	8,652	10,520	9,815	9,957
Exports (Excl Deemed)	10,660	11,430	9,839	11,039	13,247	17,221
% YoY	**54.5%**	**8.2%**	**-12.3%**	**-3.7%**	**5.2%**	**18.7%**
Domestic (excl Power EPC)	25.9%	14.7%	0.4%	-16.6%	3.6%	19.5%
Domestic (Power EPC)	144.0%	-2.6%	-37.6%	21.6%	-6.7%	1.4%
Exports	62.5%	7.2%	-13.9%	12.2%	20.0%	30.0%
EBIT Margin (%)	**11.8**	**11.1**	**11.1**	**10.3**	**10.7**	**11.2**
Energy	10.0	10.7	10.4	10.0	10.5	11.5
Environment	12.6	12.4	10.5	10.0	10.3	11.0
EPS Composition (INR/Sh)						
Standalone	32.1	34.1	29.4	26.4	30.0	38.1
TMX-Babcock JV	0.0	-0.8	-1.3	-3.2	-4.7	-4.8
Other Subsidiaries	-0.1	0.5	-1.1	2.0	4.3	6.1
Consolidated	**32.0**	**33.9**	**27.0**	**25.2**	**29.5**	**39.4**
Balance Sheet Details - Standalone						
Net Working Capital (Days)	-11.9	6.6	18.5	30.1	27.6	13.0
NWC, excl Customer Advances (Days)	60.5	55.6	69.8	84.3	83.5	72.1
Net Cash / (Debt) INR M	6,910	6,050	6,206	7,717	10,493	15,027
RoE (%) Consolidated	31.9	27.4	18.4	15.3	16.1	19.0

Source: Company, MOSL

Financials and valuation

Income statement (INR Million)

Y/E March	2011	2012	2013	2014E	2015E	2016E
Total Revenues	**52,472**	**60,313**	**54,331**	**53,687**	**58,231**	**70,012**
Change (%)	60.3	14.9	-9.9	-1.2	8.5	20.2
Raw Materials	34,803	38,435	33,157	31,010	34,398	41,221
Staff Cost	4,547	5,578	6,122	6,375	7,153	7,935
Other Expenses	8,266	10,795	10,720	12,245	11,916	14,718
EBITDA	**5,669**	**5,919**	**4,999**	**4,783**	**5,562**	**7,017**
% of Total Revenues	10.8	9.8	9.2	8.9	9.6	10.0
Depreciation	541	663	771	1,057	1,269	1,302
Other Income	652	830	769	763	921	1,121
Interest	45	122	165	350	510	500
PBT	**5,736**	**5,964**	**4,832**	**4,139**	**4,703**	**6,336**
Tax	1,965	2,043	1,773	1,494	1,720	2,195
Rate (%)	34.3	34.3	36.7	36.1	36.6	34.6
Adjusted PAT	**3,818**	**4,034**	**3,219**	**3,008**	**3,520**	**4,691**
EO Income (net)	0	0	0	0	0	0
Reported PAT	**3,818**	**4,034**	**3,219**	**3,008**	**3,520**	**4,691**
Change (%)	169.0	5.7	-20.2	-6.6	17.0	33.3

Balance sheet (INR Million)

Y/E March	2011	2012	2013	2014E	2015E	2016E
Share Capital	238	238	238	238	238	238
Reserves	12,911	16,055	18,449	20,481	22,886	26,043
Net Worth	**13,448**	**16,671**	**19,070**	**21,102**	**23,507**	**26,665**
Loans	1,480	2,704	4,210	4,210	4,210	4,210
Deferred Tax Liability	299	378	383	383	383	383
Capital Employed	**15,448**	**20,491**	**24,382**	**26,051**	**27,919**	**30,526**
Gross Fixed Assets	10,678	11,929	12,962	18,737	19,737	21,237
Less: Depreciation	2,825	3,488	4,236	5,293	6,562	7,864
Net Fixed Assets	**7,853**	**8,441**	**8,726**	**13,444**	**13,175**	**13,373**
Capital WIP	354	2,466	5,175	400	400	400
Investments	2,415	2,395	4,430	4,430	4,430	4,430
Curr. Assets	**30,370**	**33,427**	**31,319**	**33,610**	**37,318**	**44,023**
Inventory	3,657	3,666	3,240	3,221	3,494	4,201
Debtors	10,209	13,707	15,468	15,032	16,305	19,603
Cash & Bank Balance	6,880	6,983	3,211	5,496	7,068	8,236
Loans & Advances	4,015	3,560	4,125	4,492	4,628	5,682
Other Assets	5,610	5,512	5,276	5,369	5,823	6,301
Current Liab. & Prov.						
Creditors	8,928	9,690	9,723	9,664	10,482	12,602
Other Liabilities	3,264	5,495	5,404	5,373	5,782	6,842
Provisions	2,782	2,721	2,812	2,779	3,013	3,620
Net Current Assets	**4,825**	**7,190**	**6,051**	**7,777**	**9,914**	**12,323**
Application of Funds	**15,448**	**20,491**	**24,382**	**26,051**	**27,919**	**30,526**

E: MOSL Estimates

Financials and valuation

Ratios

Y/E March	2011	2012	2013	2014E	2015E	2016E
Basic (INR)						
EPS	**32.0**	**33.9**	**27.0**	**25.2**	**29.5**	**39.4**
Cash EPS	36.6	39.4	33.5	34.1	40.2	50.3
Book Value	112.9	139.9	160.0	177.1	197.3	223.8
DPS	9.0	7.0	7.0	7.0	8.0	11.0
Payout (incl. Div. Tax.)	32.6	24.0	30.3	32.4	31.7	32.7
Valuation (x)						
P/E			20.2	27.0	23.1	17.3
Cash P/E			16.3	20.0	17.0	13.6
EV/EBITDA			12.3	15.8	13.3	10.4
EV/Sales			1.1	1.4	1.3	1.0
Price/Book Value			3.4	3.9	3.5	3.0
Dividend Yield (%)			1.3	1.0	1.2	1.6
Profitability Ratios (%)						
RoE	31.9	27.4	18.4	15.3	16.1	19.0
RoCE	29.0	22.9	14.8	12.8	14.2	17.2
Turnover Ratios						
Debtors (Days)	71	83	104	102	102	102
Inventory (Days)	25	22	22	22	22	22
Creditors. (Days)	62	59	65	66	66	66
Asset Turnover (x)	3.4	2.9	2.2	2.1	2.1	2.3
Leverage Ratio						
Debt/Equity (x)	0.1	0.2	0.2	0.2	0.2	0.2

Cash flow statement (INR Million)

Y/E March	2011	2012	2013	2014E	2015E	2016E
PBT before EO Items	**5,736**	**5,964**	**4,832**	**4,139**	**4,703**	**6,336**
Add : Depreciation	541	663	771	1,057	1,269	1,302
Interest	45	122	165	350	510	500
Less : Direct Taxes Paid	1,965	2,043	1,773	1,494	1,720	2,195
(Inc)/Dec in WC	(3,329)	(2,262)	(2,633)	559	(565)	(1,241)
CF from Operations	**1,028**	**2,442**	**1,362**	**4,611**	**4,197**	**4,701**
EO Income	0	0	0	0	0	0
CF from Oper. Incl. EO Items	**1,028**	**2,442**	**1,362**	**4,611**	**4,197**	**4,701**
(Inc)/Dec in FA	(3,265)	(3,361)	(3,765)	(1,000)	(1,000)	(1,500)
(Pur)/Sale of Investments	1,289	20	(2,035)	0	0	0
CF from Investments	**-1,976**	**-3,342**	**-5,800**	**-1,000**	**-1,000**	(1,500)
(Inc)/Dec in Net Worth	1,017	868	295	(128)	89	87
(Inc)/Dec in Debt	1,401	1,224	1,506	0	0	0
Less : Interest Paid	45	122	165	350	510	500
Dividend Paid	695	1,246	976	976	1,115	1,533
CF from Fin. Activity	**1,678**	**724**	**660**	**(1,454)**	**(1,536)**	**(1,947)**
Inc/Dec of Cash	**729**	**(175)**	**(3,778)**	**2,157**	**1,661**	**1,254**
Add: Beginning Balance	6,702	6,880	6,983	3,211	5,496	7,068
Closing Balance	**6,880**	**6,982**	**3,211**	**5,496**	**7,068**	**8,235**

E: MOSL Estimates

NOTES

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