

OVERVIEW: Industry- Capital Goods:

As per different market reports, India's capital goods manufacturing industry serves across sectors like engineering, construction, infrastructure and consumer goods. It also covers different subsectors of the Indian manufacturing space as well. Growth of the industry is driven by factors like increasing industrialization and overall economic development. From a turnover of USD70bn in 2017, the industry is expected to grow to USD115.17bn by 2025.

Growth Drivers for the Industry:

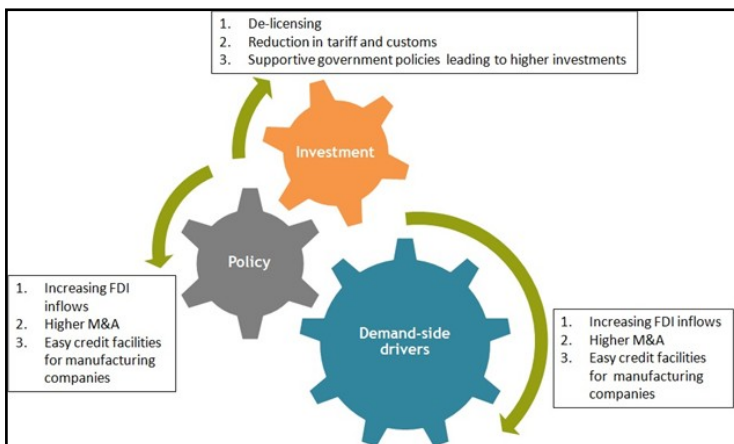
- Rising demand for infrastructure
- Growth in exports
- Policy support
- Competitive players

Different Policies - Support the growth of the industry:

- The Foreign Direct Investments (FDI) route provides growth opportunities across different sectors. Most of them have 100% FDI permitted
- Different public sector enterprises are also coming forward to leverage funds to large size projects
- There has been ramp up in exports led by the free trade agreements with ASEAN, Japan and Singapore
- Manufacturing companies have varied relaxations across the tax regime (15% exemption of tax on investment more than Rs100cr) on their plant and machinery.
- Tariffs on different capital goods and equipments has been lowered to nil or 5% in general

As indicated by the IBEF, sales of the construction equipments are expected to cross the 1,00,000 mark by 2022, while the market size is expected to grow from USD4.3bn in FY18 to USD5bn by FY20E. The Indian boiler industry's market size was USD2.2bn in FY15 and reached USD5.8bn in FY17 which is further expected to reach USD11.7bn in FY22. Production of generation equipments' (boilers, turbines and generators) in India is estimated at around USD5.7bn by 2022.

Exhibit: Growth Drivers



Source: Company Research / IBEF

The above growth drivers clearly indicate that growth across the capital goods industry depends on the combination of increase in investments/capex across different sectors, favourable policy scenario, all of which would lead to increase in demand that the sector can further capitalize on.

SNAPSHOT				
52 week H / L		Mcap (INR mn)		
1375 / 835		121,408		
Face value: 2				
BSE Code		NSE CODE		
500411		THERMAX		
Annual Performance				
(Rs mn)	FY16	FY17	FY18	FY19E
Sales (Net)	43,383	37,637	38,679	44,716
EBITDA	3,742	3,738	3,714	4,472
EBITDA (%)	8.6	9.9	9.6	10.0
Other Income	1,140	1,027	1,040	1,092
Interest	46	36	80	117
Depreciation	609	654	642	761
PBT	4,227	4,074	4,031	4,685
PAT	2,975	1,448	2,383	3,280
Equity (Rs mn)	238	238	238	238
EPS (INR)	25	12	20	28
Quarterly Performance				
Parameters (Rs mn)	Jun-17	Sep-17	Dec-17	Mar-18
Sales (Net)	7,134	8,639	9,805	13,101
EBITDA	429	861	924	1,499
EBITDA (%)	6.0	10.0	9.4	11.4
Other Income	222	219	219	380
Interest	5	38	17	21
Depreciation	150	150	168	175
PAT	324	568	632	858
Equity (Rs mn)	238	238	238	238
Ratio Analysis				
Parameters (Rs mn)	FY16	FY17	FY18	FY19E
EV/EBITDA (x)	32.5	32.5	32.7	27.2
EV/Net Sales (x)	2.8	3.2	3.1	2.7
M Cap/Sales (x)	2.8	3.2	3.1	2.7
M Cap/EBITDA (x)	32.4	32.5	32.7	27.2
Debt/Equity (x)	0.1	0.1	0.1	0.1
ROCE (%)	19	17	16	17
Price/Book Value (x)	5.2	5.0	4.7	4.3
P/E (x)	40.8	43.7	46.1	37.0
Share Holding Pattern as on 31st March, 2018				
Parameters	No of Shares	%		
Promoters	73,855,305	61.98		
Institutions	31,318,184	26.28		
Public	13,982,811	11.74		
TOTAL	119,156,300	100.00		

Note: All the data is calculated as per Market Price on 17th July 2018

About the company:

Thermax Group (USD750mn) company provides a range of engineering solutions majorly to the energy and environment sectors. Thermax Limited (Thermax) is based in Pune and has seven manufacturing facilities in India and internationally has presence in China (absorption chiller), Denmark, Germany and a recently set up facility in Indonesia. The company with its subsidiaries offers integrated innovative solutions in the areas of heating, cooling, power, water & waste management, air pollution control and chemicals to different sectors such as oil & gas, cement, metals, pharma and food processing to mention a few. The company has Ms. Meher Pudumjee as the Chairperson and Mr. M S Unnikrishnan as the Managing Director.

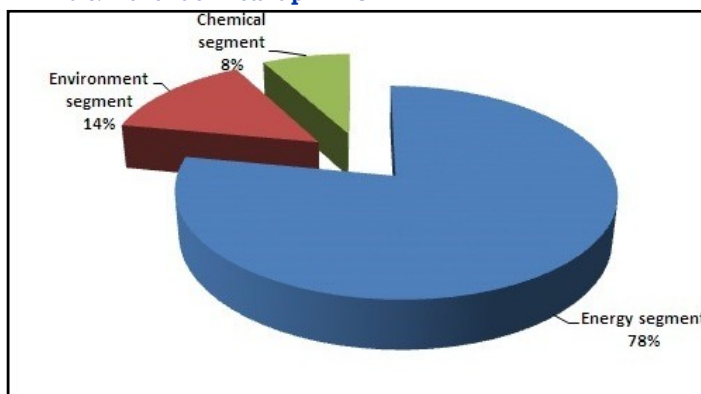
Business Segments:

The business of the company can be bifurcated into:

- Energy Segment
- Environment Segment
- Chemical Segment

With regard to the revenue breakup of FY18; the Energy segment contributed 78% while the environment segment accounted for 14.1% of the total revenues. The chemical segment contributed 7.9% of the total revenues. Thermax has indicated to have energy and environment split to be same going forward (50:50).

Exhibit: Revenue Breakup FY18



Source: Company Research

Each of these segments has a range of products and services, broadly categorized into Products, Projects (EPC and contracts) and O&M (Operations & Maintenance) Services.

Energy Segment:

The energy segment contributes ~78% of the total revenues. This segment includes heating, cooling, boilers for power generation, power EPC, solar and service arms including Power O&M services. The heating segment supplies boilers while the cooling business provides industrial and commercial cooling using the vapour absorption chillers. The power business offers turnkey power plants and the solar business deals in photovoltaic and solar thermal solutions.

Environment Segment:

The Environment segment accounts for ~14.1% of total revenues. It consists of air pollution control and water and waste solutions. The air pollution control business caters to a wide range of industries like cement, steel and ferrous metals, petrochemicals, fertilizers etc. to mention a few. The water and waste solutions business supports industries to treat water for their process requirements and simultaneously clean sewage and effluent.

Chemical Segment:

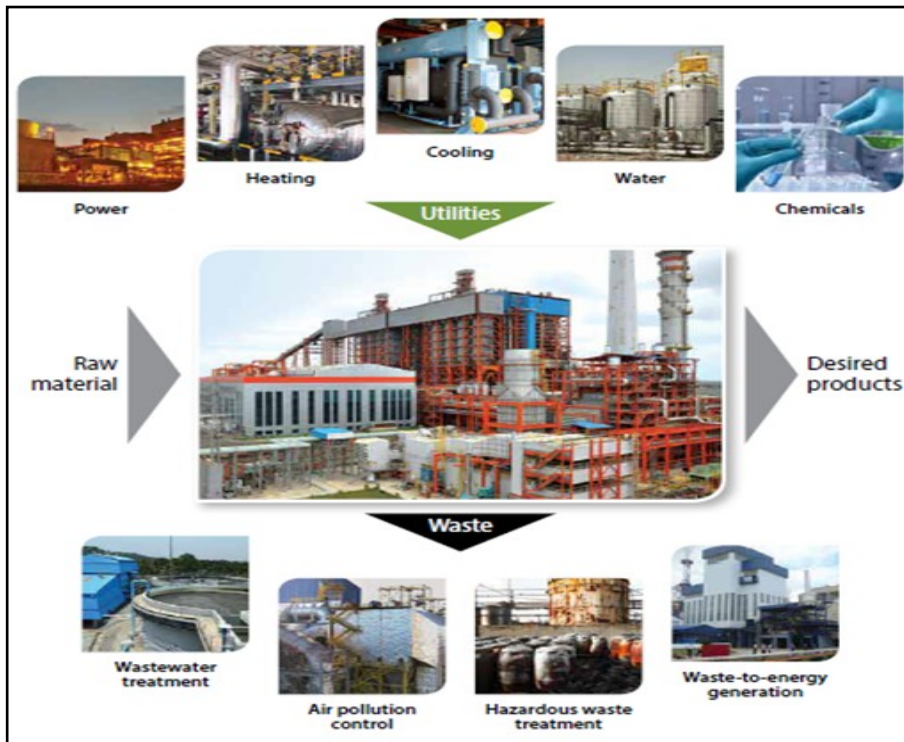
The chemical segment accounts for ~7.9% of the operating revenues. It comprises of boiler and water chemicals, resins, performance chemicals, construction chemicals, paper chemicals and oil field chemicals. It has customers in the domestic, as well as several international markets such as the Middle East, Japan, Europe and US. This segment mainly utilizes two manufacturing facilities of Paudh (Maharashtra) and Jhagadia (Gujarat) and an upcoming at Dahej, Gujarat.

The EPC business includes designing and integration of different machines in order to deliver a complete plant to the customer. Like for e.g. Thermax supplies complete power plants by integrating boilers, chillers and various utilities such as water & waste treatment and air pollution control equipment that are made by it while the turbines, generators and the balanced parts procured from other manufacturers.

Most of the product and service businesses are handled by the parent company while the subsidiaries abroad are majorly for sales/ service profile.

Business Segments:

Exhibit: Business Structure



Source: Company Annual Report

INVESTMENT RATIONALE:

(A) Revival of Industrial Capex :

There has been a turnaround seen in the weak capex cycle witnessed in the last 5-6 years. For capital goods order inflow; the five major sectors to focus on are power, fertilizers, cement, oil & gas and steel. Recovery across these sectors is on the cards and expected to strengthen from hereon. Thermax has been closely tracking developments across these sectors in terms of the revival in capex and expects the order inflow momentum to improvise going forward.

Steel: Gradual Recovery:

In the past one year, there has been a gradual recovery seen in the global Steel demand and prices leading to better-than-expected performance by India's Steel sector as well. India is now the third largest Steel producer in the world with the successful reversal of trend of the increasing imports as it has become a net exporter.

The National Steel Policy 2017 (targets to achieve 300MT of steelmaking capacity by 2030, translating into additional investment of Rs10lakhcr (USD 156.08bn by 2030-31)) has planned the long-term vision road map for steel industry in India. Incremental capex has been planned by the major companies namely Tata Steel, SAIL and JSW Steel for expanding their production capacity. *The government has set the target of achieving Steel production capacity of 150mn tonnes by 2020.* For Thermax, capex in the steel space could drive orders for boilers in blast furnace.

Exhibit: Major Capex Plans

Tata Steel	JSW Steel
<ul style="list-style-type: none"> From the current 3mn tonnes installed capacity at Kalinganagar, the company is further expanding to reach 8mn tonnes at an additional outlay of Rs235bn The company will also set up 1.5mtpa coke oven plant 	<ul style="list-style-type: none"> The company plans to expand the Vijayanagar facility to 13mtpa from 12mtpa at the cost of Rs75bn An additional 5mtpa capacity at JSW's factory in Dolvi will be ready by March 2020 It is also setting up capacity of 12mn tonnes at Paradip at the committed investment of Rs550bn

Source: Company Research

INVESTMENT RATIONALE: (contd.)

Recent Order Win (Steel Sector):

The company has received an order of Rs3.4bn from a leading Indian steel manufacturer for a specially designed boiler, electric turbo generators and ancillary equipment for their production facility in Maharashtra, India. The specially designed boiler will use waste gases produced in the steel manufacturing process to generate high-pressure steam for power generation using high-efficiency reheat cycle. The scope of work includes design, engineering, procurement, manufacturing, supply, installation and commissioning. This is expected to be completed in a tenure of 21 months.

Cement Industry: Revival on the cards:

With regards to the cement sector; the company has been positive in terms of the orders expected. The cement companies are currently running at a capacity of ~75%. Once these reach 85%, they would enter the capex mode. In fact many cement plants have already started the capex.

Some Expansions Chalked:

Ultratech Cement is planning to build Rs18.5bn plant in Rajasthan. The plant will have a capacity of 3.5mn tonnes per annum and is expected to commence operation by June 2020. JK cement is aiming to further increase its production capacity to reach 18mtpa by 2022. JSW Cement is planning to add ~8mtpa of capacity at a capex of Rs50bn over the next few years. This is where the opportunity lies for Thermax which provides power plant solutions and waste heat recovery systems to the sector.

Oil & Gas Industry:

The Oil and Gas sector, which is one of the crucial core industries in the country, contributing about 15% to the total gross domestic product (GDP) and worth ~USD139.8bn in 2015, has tremendous growth potential. Refinery and petrochemical plant expansions, revival of fertilizer plants, brownfield /greenfield expansions should all lead to growth across the sector.

The OMC's Expansion:

IOCL plans to almost double its capacity to 150MT by investing ~Rs1.8tn over the next 5-7 years. HPCL is looking to increase its refining capacity. Some of the key refinery expansions to be taken up are in Mumbai, Vizag and Barmer. BPCL is looking to expand capacity from 31mtpa to 50mtpa by FY22. Refineries across Kochi, Bina (Madhya Pradesh), Mumbai and Numaligarh (Assam) would be part of the expansion.

With regards to the Power Industry (global slowdown witnessed with drastic reduction in investments in the thermal power projects) and Fertilizer Industry as indicated by the management there is not much to expect in the near future.

The consumer driven sectors of Food, Sugar, Paper and Chemicals have been the blessing in disguise for the company in the absence of any substantial capex been undertaken by the leading core sectors.

Overall, with the growth across the sectors and increasing capex, Thermax would also benefit from the same; being one of the opted contenders in the capital goods space.

(B) Opportunity- Emission Control Equipment Providers:

The new emission norms for air and water were defined by the MOEF (Ministry of Environment and Forests) in Dec-15 with a timeframe of two-years for implementation (i.e. by Dec-2017). The norms were defined as per the plants commissioned prior to 2003, commissioned between 2004 and 2016 and plants commissioned after 2016 respectively.

Exhibit: Emission Norms defined by MOEF

Description	Sulphur Dioxide	Oxide of Nitrogen	Particulate matter
Plant prior to December, 2003	600mg/Nm ³ (units < 500MW capacity) 200mg/Nm ³ (units ≥ 500MW capacity)	600mg/Nm ³	100mg/Nm ³
Plant after Jan'03 upto Dec'16	600mg/Nm ³ (units < 500MW capacity) 200mg/Nm ³ (units ≥ 500MW capacity)	300mg/Nm ³	50mg/Nm ³
Plant to be installed from Jan'17	100mg/Nm ³	100mg/Nm ³	30mg/Nm ³

Source: MOEF Website

In spite of the bifurcations, not much did fructify on this front and so the Central Electricity Authority (CEA) extended it to a five-year timeline, wherein the power plants would have to install the requisite emission control equipment by December 2022. The emission control equipment implementation plan submitted by the CEA to the Ministry of Environment and Forest (MOEF) has been accepted and Central Pollution Control Board (CPCB) has issued notices to ~131GW plants in December 2017 (~190GW is India's coal-fired capacity) to comply with these emission norms as per the phasing plan submitted to the CEA.

INVESTMENT RATIONALE (contd.)

NTPC, with the largest installed thermal power capacity in India, would require Flue-gas desulfurization (FGD) systems for approximately 25,000 MW, of which, nearly 7,000MW have already been awarded (as per news articles). Demand is also on the rise for selective catalytic reduction (SCR - the most powerful post-combustion NOx reduction process) for coal-fired power plants. Electrostatic precipitators (used in thermal power plants for removal of fly ash from the electric utility boiler emissions) are also to be installed in the existing power plants.

All of these opportunities provide scope for growth of:

- Pollution control technology manufacturers
- Service providers for engineering, supply and erection of commission systems
- Boiler manufacturers of over 200MW
- Large-scale engineering, procurement and construction companies (EPC's)

The competitive scenario is expected to aggravate with participation from boiler manufacturers along-with EPC contractors. Major part of the orders would have to be placed by Dec-2020 for the construction to complete on time by Dec-2022 (since execution and commissioning would take on an average 20-24 months).

The other positive would be phasing out of old plants for the implementation of emission norms (Life of Power plants ends in approximately 35-40 years and are then phased out). These need to be replaced by super critical units.

All of this would benefit Thermax, being one of the preferred players in the list of the beneficiaries.

(C) Capacity Expansion- Contribution by FY19E:

In order to cater to the demand across the different business segments; Thermax has invested in three manufacturing plants majorly to support its product businesses.

Dahej Plant: In FY18, Thermax commissioned Phase I of its chemical factory at Dahej for ion exchange resins and specialty chemicals (under the brand name Tulsion) with a capacity of 10,000 m3 per annum which has stabilized and is ready to take new orders. The company expects that by Sept/Oct, 2018 it should reach the peak capacity for that factory. Currently the capacity utilization is around 44% which is expected to reach 65-70% in the current year.

With the perspective of not having to use the old chemical facility at Paudh, Thermax has started with the Phase II of the Dahej Plant with 12,000m3 capacity addition at a capex of ~Rs600mn. This will help the company increase its total installed capacity to 22,000m3 per annum. It has already ordered the machineries and targets the commissioning by Q1FY20. This will help in fulfilling the total expected demand of 18-19,000m3 in FY20. It however will continue to operate the existing Pune facility (10,000m3 pa) in order to cater to the demand till the required capacity is achieved. The management has guided that the capacity will start ramping-up significantly from H2FY19E and will achieve optimum level by H1FY20E.

Sri City (Andhra Pradesh): The factory installation has been completed for absorption chillers facility (800 chillers/annum) at Sri City, Andhra Pradesh. The company expects to commence trial runs from end Q2FY19. The company expects that the plant should stabilize in FY19 itself.

New Factory (Indonesia): The boiler facility in Indonesia has been set up to cater to South East Asia markets with an initial investment of USD25mn. It will be the manufacturing hub for ASEAN region to meet the market demand. The product range includes packaged boilers, heaters, chillers, water & waste water treatment plant along with pollution control equipment for the ASEAN countries. The facility was commissioned in 1QFY18 and the company has seen traction in order enquiries from Thailand, Vietnam and Philippines.

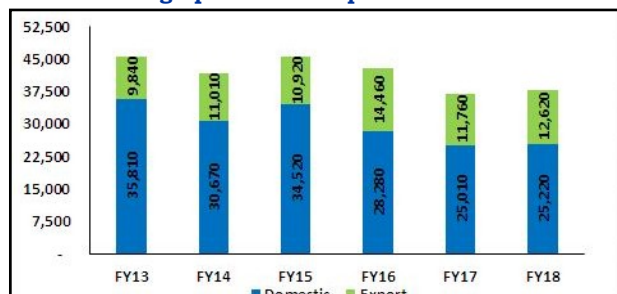
Added Advantage: In order to address the subdued and weak domestic business; the company has ventured into the exports markets. It is working with the *strategy of localization* by setting up subsidiaries where the demand and prospective customers are. Also the company would get exemption from duties when plant is locally present. Indonesia expansion is one of the initiatives on these lines.

(D) Geographical Presence:

Thermax has presence across 85 countries across Asia Pacific, Africa and the Middle East, CIS countries, Europe, USA and South America.

Around 66.6% of the revenues come from the domestic markets while the remaining 1/3rd comes from the exports. The company has been indicating of shifting focus towards the international orders in order to deal with the slowdown in the domestic space and gradually make the ratio of 50:50 from domestic and exports respectively.

Exhibit: Geographical Breakup: Standalone



Source: Company Research

INVESTMENT RATIONALE (contd.)

(E) Subsidiaries and JVs:

The company has various subsidiaries (25 subsidiary companies in India and Abroad) and JVs which helps it be a one-stop solution across the value chain of the different industries catered.

Subsidiaries- Recent Developments:

(i) Babcock & Wilcox India Holdings Inc: Thermax had set up a joint venture in 2010 with Babcock & Wilcox Power Generation Group, US for manufacturing large boilers. In the recent conference call, the company had informed of its agreement with Babcock & Wilcox to buy their 49% shareholding and take over the entire manufacturing facility. The large boiler capacity in India of the company is in Savli since 2007. Babcock facility is capable of making subcritical, supercritical and even captive power size boilers which should help Thermax in ramping up the existing business. It also gives Thermax the technology for supercritical, subcritical and air pollution control related to NOx technology which it would have to buy from the limited suppliers in international markets if not for the deal. Through the buyout, the company will get the technology transfer for a relatively large period expected to be ~20 years. Also the factory could be used as a feeder plant for various international project business. So collectively, the Company has indicated of buying the stake in the JV with the perspective of getting access to the manufacturing facility, wider range of technologies and access to NOx technologies.

(ii) Danstoker (Denmark): The subsidiary incurred cost over runs in two projects, apart from someone-off expenses which led to losses both in Q4 & FY18. The performance was impacted by one-offs which is however expected to recover in FY19E. Loss in the Poland facility acquired in FY17 was on expected lines. (Thermax through its step-down subsidiary in Denmark acquired certain assets and production activities of Barite Investments Sp. z.o.o. in Poland. This provides the company additional manufacturing capacity for future expansion and for advancing its business in Eastern Europe).

(iii) Thermax (Zhejiang) Cooling & Heating Engineering (China): There were litigation related provisions of Rs177mn reported which led to Ebitda losses for the subsidiary. Thermax has indicated of challenging these litigations, although it has recognised the provisions. As per Management, litigation towards Indian companies in general has increased due to the fading relations between India and China, with Thermax being no exception. The company further updates that it would not sell goods in China from this facility (barring a few offerings such as heat exchangers and components), but use it for manufacturing and cater to global demand. As far as fulfilling the short cycle bulky orders are concerned, this facility serves the best and hence the company will not take any hasty decision of closing down the facility in the near term. Performance of the company is expected to be flat in FY19 and the company has further recognized diminution in the value of investment in the subsidiary.

(iv) First Energy (FE) (Pune): FE is an alternative solutions company through which Thermax (holding 76%) participates in the commercial segment. Thermax's investment in the company negated as it coincided with the shift from gasifiers to LPG cylinders due to decline in crude prices. Due to this mistiming, FE's customer strength reduced. However, with the increase in crude prices there should be a pick up seen in the addition of the customer base gradually.

(F) Recent project completions and future Orders:

Geography / Company	Particulars
Refinery project: Nigeria	Won the highest ever export contract of USD157mn from a leading African conglomerate for its refinery project
Turnkey captive power plant- UAE	Won a USD43mn contract from a leading cement company in UAE for a turnkey captive power plant, the first EPC order that Thermax will be executing for a GCC (Gulf Co-operation Council) country
(BTG project) -India	Thermax concluded a Rs3270mn order from a public sector company based in Western India for its upcoming chemical plant. The project is for a BTG (Boiler-Turbine-Generator) package on EPC basis for its captive cogeneration power plant of 2 x 65 MW capacity
(Fertilizers) -India	Secured a Rs5030mn order from a leading public sector fertiliser company to set up three natural gas based EPC cogeneration plants (each of 20 MW capacity) at its facilities in Haryana and Punjab
Solar captive plant- India	The company has commissioned 5.76MW rooftop solar PV captive power plant (second largest plant in India for public sector hydrocarbon company). This is a significant milestone in renewable energy sector. This plant will generate 79,30,000 units of electricity per annum for customer's captive use.
Bioreactor- India	Thermax commissioned a Membrane Bioreactor based wastewater treatment plant as well as Zero Liquid Discharge for a leading oil multinational in Bengaluru, India

Source: Company Annual Report 2018

INVESTMENT RATIONALE (contd.)

(G) Order Flow and Order Book:

For FY18, the consolidated order inflow was at Rs63.8bn registering robust growth of 45.2% on a y-o-y basis. This was led by the large orders from Oil & Gas (Dangote Rs10bn order), Cement (Captive Power Plant) and Fertilizers (Co-gen plants two major orders on an EPC basis) segment. On the standalone front, the order inflow was at Rs56.9bn which included Rs2.7bn of cleaning orders.

Although the large order pipeline is limited, the company has been receiving enquiries for small size (Rs1-4bn) orders. Thermax targets to sustain the order inflows at similar levels going forward as well, through orders from sectors like Oil & Gas, Steel and Consumption to mention a few.

Exhibit: Order book: Consolidated:



Source: Company Research

(H) Commodity Inflation Well Managed:

Most of the contracts of the company are fixed price in nature, so there is not much of an impact of commodity inflation on the company. It further minimizes the exposure through defined measures and disciplined execution. The company generally finalises orders for most of the commodities within a month of receiving the order, and also has annual rate contracts for parts such as motors, pumps etc. Like the company indicated that it has already completed ordering for ~90% of the Dangote order. The only volatility would be through the steel prices which have no hedging options. Thus, the company has a set mechanism for all the other forms of raw materials except for Steel.

(I) Strategy by the management to deal with volatility: Well Insulated business structure:

Thermax's has a lucrative strategy in place to reduce the business volatility. Some of the initiatives taken are:

- The company is taking steps to enter into the process chillers which has a larger market compared to absorption chillers
- Ramping up the Water business and entry into rooftop solar
- Commercial customers for heating and cooling to be the target of growth
- Concrete efforts are being made to increase the share of products and services while reduce the projects (currently at ~65%-70%) in the total revenues of the company
- Gauging the lucrativeness of projects business in Southeast Asia, to take up expansion overseas

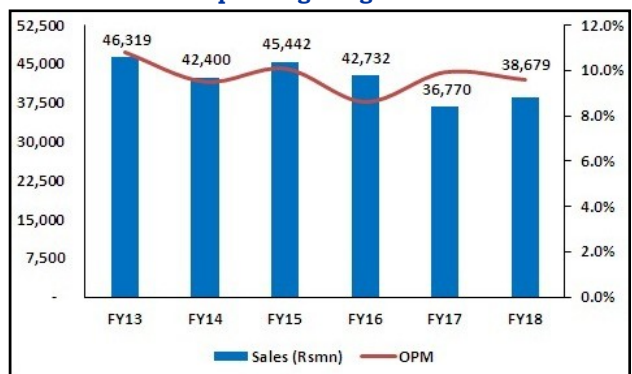
Financials:

Sales and Margin Improvement Going Forward:

Although the FY18 numbers have been weak for the company led by factors including losses in subsidiaries, GST-related headwinds in the domestic business and costs associated with new capacities; going forward we expect there should be an improvement on the sales front with the uptick in the industrial capex, changed growth outlook coupled with cost reduction initiatives & execution pick up for better volumes to translate to better Ebitda margins.

Debt Free: The Company is virtually debt free except for the short term borrowings needed for the operations part of the company. This also gives it an edge as a key player in the industry. Also the company has indicated that all the expansions (planned capex of Rs15bn over the next 5 years) would be done through internal accruals.

Exhibit: Sales & Operating Margins Trend:



Source: Company Research

Performance on Consolidated Front:

On the consolidated front as well the company has been performing well on track with a strong order book execution in the past and a promising future order book (Rs63.8bn as of FY18) to be garnered going forward. In FY18, the sales de-grew by 2.7% due to e-way bill execution and delays in supplies while the operating margins stood at 9%. Overall, we feel that the company is standing strong to capture a major pie of the pipeline of capex orders through its domestic as well subsidiary arms.

Risks and Concerns:

- The international business would be impacted by currency fluctuations
- Economic stagnation would be a concern for all the industries that the company caters to
- Increase in commodity prices (steel and steel derivatives)
- Different ongoing projects could face financial constraints and be halted; recovery of receivables would be a challenge

July 18, 2018

PICK OF THE MONTH

VOL-4, NO-7

Thermax Limited

BUY

CMP: Rs.1019

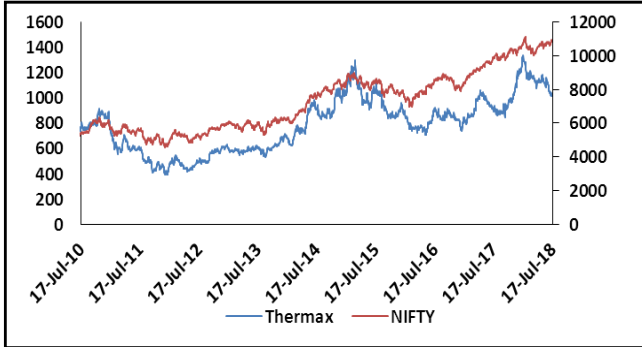
TARGET PRICE: Rs.1230

TIME : 12 months

Outlook and valuations:

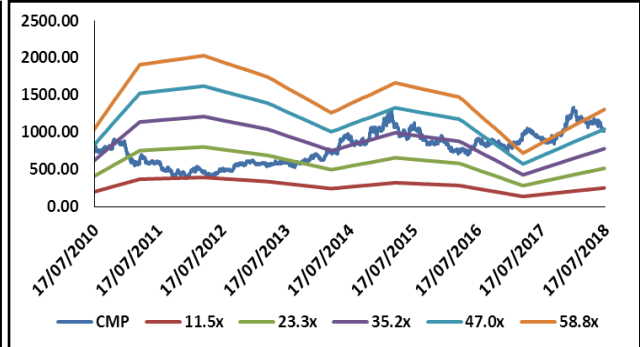
Thermax has been strongly present in the industry with the manufacturing capacities, technology as well as manpower capabilities. It is aptly placed to capitalize on the recovery in the capex cycles across different industries. The company is gradually inching towards its 10 year plan of revenues of Rs160bn backed by the well planned business execution and planned order procurements across different sectors, standing out as a strong contender in the Capital goods space. We initiate BUY on the stock with a target price of Rs1,230 over a 12 months horizon. This is an excellent SIP candidate for those who have long term perspective. The best strategy would be to accumulate the stock.

Exhibit: Thermax vs. Nifty



Source: Ace Equity

Exhibit: One year forward P/E



Source: Ace Equity

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