

August 3, 2022

Q1FY23 Result Update

☑ Change in Estimates | ☑ Target | ■ Reco

Change in Estimates

	Cur	rent	Previous			
	FY23E FY24E		FY23E	FY24E		
Rating	ACCU	MULATE	ACCU	IULATE		
Target Price	2,	190	2,	181		
Sales (Rs. m)	75,078	86,274	73,515	85,602		
% Chng.	2.1	0.8				
EBITDA (Rs. m)	5,963	7,672	5,692	7,527		
% Chng.	4.8	1.9				
EPS (Rs.)	39.4	50.9	38.2	50.7		
% Chnq.	3.1	0.4				

Key Financials - Consolidated

Y/e Mar	FY21	FY22	FY23E	FY24E
Sales (Rs. m)	47,913	61,283	75,078	86,274
EBITDA (Rs. m)	3,552	4,214	5,963	7,672
Margin (%)	7.4	6.9	7.9	8.9
PAT (Rs. m)	2,460	3,123	4,434	5,734
EPS (Rs.)	21.8	27.7	39.4	50.9
Gr. (%)	15.8	26.9	42.0	29.3
DPS (Rs.)	7.0	9.0	12.6	16.3
Yield (%)	0.3	0.4	0.6	0.8
RoE (%)	7.8	9.3	12.2	14.4
RoCE (%)	7.1	8.3	11.8	14.5
EV/Sales (x)	4.4	3.5	2.8	2.4
EV/EBITDA (x)	59.1	50.3	35.5	27.5
PE (x)	92.4	72.8	51.3	39.6
P/BV (x)	7.0	6.5	6.0	5.4

Key Data	THMX.BO TMX IN
52-W High / Low	Rs.2,347 / Rs.1,287
Sensex / Nifty	58,351 / 17,388
Market Cap	Rs.241bn/ \$ 3,039m
Shares Outstanding	119m
3M Avg. Daily Value	Rs.131.22m

Shareholding Pattern (%)

Promoter's	67.47
Foreign	11.84
Domestic Institution	15.68
Public & Others	5.01
Promoter Pledge (Rs bn)	-

Stock Performance (%)

	1M	6M	12M
Absolute	(1.1)	(8.0)	44.1
Relative	(10.3)	(0.1)	32.9

Amit Anwani

amitanwani@plindia.com | 91-22-66322250

Nilesh Soni

nileshsoni@plindia.com | 91-22-66322214

Thermax (TMX IN)

Rating: ACCUMULATE | CMP: Rs2,019 | TP: Rs2,190

Order inflows continues to remain strong

Quick Pointers

- Order inflows momentum continued, growing by 36.3% YoY at Rs23.1bn, including utility boiler order worth Rs5.2bn.
- Margin revival expected in coming quarters, owing to commodity prices with major turnaround in Chemical segment margins.

Thermax (TMX) reported a robust revenue growth of 57.2% YoY, while margins were impacted in Q1FY23, largely due to higher commodities prices, higher freight cost witnessed in chemical segments and execution of legacy FGD order in Environment segment. We expect margins to improve from Q2FY23 given 1) improvement in chemical segment with commodity prices softening and better product mix, 2) execution of two new FGD orders (slightly better compared to previous ones) and 3) margin revival in energy segment due to softening of key commodities prices. Enquiries pipeline remains strong from sectors such as refinery, steel, power and chemicals while some slowdown may be witnessed in large steel projects.

Thermax is well placed to gain from increasing thrust on clean energy & decarbonization initiatives and broad base recovery in private capex because of its 1) technical expertise, 2) strong balance sheet and 3) prudent working capital management. Given strong order book, healthy enquiry pipeline, better execution and margin revival, we expect TMX to report, revenue/PAT CAGR of 18.7%/35.5% between FY22-24E. At CMP stock is trading at 51.3x/39.6x for FY23/24E. We maintain 'Accumulate' rating on stock with revise TP of Rs2,190 (Rs2,181 earlier), valuing it at PE of 43x FY24E EPS.

Higher commodity and freight cost impacts margins: Consol. sales grew 57.2% YoY to Rs16.5bn (PLe ~Rs12.7bn), driven by healthy opening order book and better execution. Energy/Environment/Chemical revenue grew 60.9%/62%/22.3%YoY. Gross margin declined to 41.3% in Q1FY23 vs 49.4% in Q1FY22, impacted due to higher commodity prices. EBITDA came in at Rs960mn, (PLe ~Rs723mn) with EBITDA margins contracting by 19bps YoY to 5.8%, partly impacted due to higher freight cost in chemical segment. On segmental front Energy segment's EBIT margin expanded 242bps YoY to 6.1%, Environment margin expanded 19bps YoY to 1.7%, while Chemicals margin declined to 3.7% vs 17.6% in Q1FY22 due to substantial impact of high commodity prices (specially Styrene) and change in product mix. Adj. PAT came in at Rs590mn up 39% YoY.

Robust order inflows: Order inflows during the quarter came in at Rs23.1bn up 36.2% YoY. Off total order inflows Energy accounted for 76%, Environment 17% and Chemicals 6%. Order book stands strong at Rs95.5bn, up 56.4% YoY (1.4x TTM revenue). Company is witnessing strong traction in International inquiry pipeline driven by Europe post Russia-Ukraine conflict.

August 3, 2022



Exhibit 1: Higher commodity and freight cost impacts margin (Rs mn)

Y/e March	Q1FY22	Q2FY22	Q3FY22	Q4FY22	Q1FY23	YoY gr. (%)	QoQ gr. (%)	FY22	FY21	YoY gr. (%)
Revenue	10,524	14,693	16,147	19,919	16,545	57.2	(16.9)	61,283	47,913	27.9
Total Revenues	10,524	14,693	16,147	19,919	16,545	57.2	(16.9)	61,283	47,913	27.9
Expenditure	9,893	13,593	15,016	18,567	15,585	57.5	(16.1)	57,070	44,361	28.6
as % of sales	94.0	92.5	93.0	93.2	94.2			93.1	92.6	
Consumption of RM	5,328	8,080	9,058	12,385	9,707	82.2	(21.6)	34,850	25,386	37.3
as % of sales	50.6	55.0	56.1	62.2	58.7			56.9	53.0	
Employee Cost	1,912	1,956	2,067	2,195	2,149	12.4	(2.1)	8,129	7,588	7.1
as % of sales	18.2	13.3	12.8	11.0	13.0			13.3	15.8	
Other expenditure	2,654	3,558	3,892	3,987	3,729	40.5	(6.5)	14,090	11,387	23.7
as % of sales	25.2	24.2	24.1	20.0	22.5			23.0	23.8	
EBITDA	630	1,100	1,131	1,352	960	52.3	(29.0)	4,214	3,552	18.6
Depreciation	274	274	290	295	286	4.2	(3.1)	1,132	1,146	(1.2)
EBIT	357	826	841	1,058	675	89.3	(36.2)	3,081	2,406	28.1
Other Income	254	368	292	357	205	(19.1)	(42.5)	1,270	1,077	17.9
Interest	48	51	53	101	66	37.4	(34.8)	252	206	21.9
PBT	563	1,143	1,080	1,314	815	44.8	(38.0)	4,100	3,277	25.1
Total Tax	139	264	286	290	224	61.8	(22.6)	978	686	42.5
Adjusted PAT	424	879	795	1,024	590	39.2	(42.4)	3,122	2,591	20.5
(Profit)/loss from JV's/Ass/MI	-	-	-	1	(1)	-	-	-	-	-
PAT after MI	424	879	795	1,025	590	39.0	(42.5)	3,122	2,591	20.5
Extra ordinary items	=	-	-	-	=	-	-	-	(525)	-
Reported PAT	424	879	795	1,025	590	39.0	(42.5)	3,122	2,066	51.1
Adjusted EPS	3.8	7.8	7.1	9.1	5.2	39.0	(42.5)	27.7	21.8	26.9
Margins (%)	Q1FY22	Q2FY22	Q3FY22	Q4FY22	Q1FY23	bps	bps	FY22	FY21	bps
EBIDTA	6.0	7.5	7.0	6.8	5.8	(19)	(98)	6.9	7.4	(54)
EBIT	3.4	5.6	5.2	5.3	4.1	69	(123)	5.0	5.0	1
EBT	5.3	7.8	6.7	6.6	4.9	(42)	(167)	6.7	6.8	(15)
PAT	4.0	6.0	4.9	5.1	3.6	(47)	(158)	5.1	4.3	78
Effective Tax rate	24.6	23.1	26.5	22.1	27.5	290	549	23.9	20.9	292

Source: Company, PL

Exhibit 2: Segmental Performance (Rs mn)

	Q1FY22	Q2FY22	Q3FY22	Q4FY22	Q1FY23	YoY gr. (%)	QoQ gr. (%)	FY22	FY21	YoY gr. (%)
Revenue										
Energy	7,627	10,572	11,632	14,512	12,274	60.9	(15.4)	44,343	36,273	22.2
Environment	1,804	3,119	3,393	4,624	2,923	62.0	(36.8)	12,939	7,941	62.9
Chemicals	1,227	1,287	1,554	1,317	1,501	22.3	13.9	5,385	4,295	25.4
Less: Intersegment	(134)	(285)	(431)	(533)	(153)	13.9	(71.4)	-	(596)	(100.0)
Total	10,524	14,693	16,147	19,920	16,545	57.2	(16.9)	62,667	47,913	30.8
EBIT										
Energy	279	841	728	1,007	746	167.8	(25.9)	2,855	2,177	31.1
EBIT margin (%)	3.7	8.0	6.3	6.9	6.1			6.4	6.0	
Environment	28	64	107	232	50	81.8	(78.4)	430	376	14.3
EBIT margin (%)	1.5	2.0	3.2	5.0	1.7			3.3	4.7	
Chemicals	216	199	171	37	56	(74.1)	49.9	624	1,034	(39.7)
EBIT margin (%)	17.6	15.5	11.0	2.8	3.7			11.6	24.1	

Source: Company, PL



Conference call highlights

- Growth in order book and revenue was a result of better order inflows received in H2FY22.
- Enquiry pipeline continues to remains healthy from both domestic as well as from international markets for next couple of quarters. Upward trend is witnessed in Sugar/distilleries, paper & pulp industries for the green offerings.
- Europe is witnessing strong order enquiry pipeline from segment such as biomass, electric boilers etc. post Russia-Ukraine conflict.
- Order inflows: Order inflows grew 36% YoY to Rs23bn, led by strong growth in Energy (up 40%), Environment (up 35%) and Chemical (up 5%).
- Order book: Order book stands healthy at Rs95.5bn, well diversified across industry such as Refinery/Metals & Steel, Sugar, Power, Food & Beverages etc.
 - FGD order book stands at Rs18bn as on Q1FY23.
 - Off the total order book 70% of orders are from green orders of which 50% related to waste to energy applications.
- FGD continues to drag the environment segment margin. Two new FGD orders are slightly better compared to old ones. They are expected to maintain margin at 4-5% compared to 8-9% margin expectation when bided, mainly impacted due to sharp run up in commodity prices.
 - Going forward FGD ordering activity will be moderate and Thermax won't be aggressive while bidding for contracts.
- Energy segment is likely to report better margins in coming quarters, with commodity prices softening.
- Chemical segment margins were impacted due to higher commodity prices and change in product mix with lower contribution from specialty chemical and challenges in price pass through. Though margins are expected to improve from Q2FY23 onwards with commodity prices softening and improvement in product mix with better margins product contribution rising.
- Solar opex business: Thermax is setting up three solar plant in Tamil Nadu, Maharashtra and Gujarat. Tamil Nadu and Maharashtra plant are expected to contribute to revenue from Q3FY23 onwards, while Gujarat from Q1FY24 onwards.



Financials

Income Statement	(Rs m)
------------------	--------

Y/e Mar	FY21	FY22	FY23E	FY24E
Net Revenues	47,913	61,283	75,078	86,274
YoY gr. (%)	(16.4)	27.9	22.5	14.9
Cost of Goods Sold	25,386	34,850	41,787	47,199
Gross Profit	22,526	26,433	33,291	39,075
Margin (%)	47.0	43.1	44.3	45.3
Employee Cost	7,588	8,129	9,685	11,302
Other Expenses	4,481	5,199	7,583	8,972
EBITDA	3,552	4,214	5,963	7,672
YoY gr. (%)	(12.6)	18.6	41.5	28.7
Margin (%)	7.4	6.9	7.9	8.9
Depreciation and Amortization	1,146	1,132	1,213	1,347
EBIT	2,406	3,081	4,750	6,325
Margin (%)	5.0	5.0	6.3	7.3
Net Interest	206	252	265	276
Other Income	1,077	1,270	1,426	1,596
Profit Before Tax	2,752	4,100	5,911	7,645
Margin (%)	5.7	6.7	7.9	8.9
Total Tax	686	978	1,478	1,911
Effective tax rate (%)	24.9	23.9	25.0	25.0
Profit after tax	2,066	3,122	4,434	5,734
Minority interest	-	-	-	-
Share Profit from Associate	-	1	-	-
Adjusted PAT	2,460	3,123	4,434	5,734
YoY gr. (%)	15.8	26.9	42 .0	29.3
Margin (%)	5.1	5.1	5.9	6.6
Extra Ord. Income / (Exp)	(394)	-	-	-
Reported PAT	2,066	3,123	4,434	5,734
YoY gr. (%)	(2.8)	51.2	42.0	29.3
Margin (%)	4.3	5.1	5.9	6.6
Other Comprehensive Income	-	-	-	-
Total Comprehensive Income	2,066	3,123	4,434	5,734
Equity Shares O/s (m)	113	113	113	113
EPS (Rs)	21.8	27.7	39.4	50.9

Source: Company Data, PL Research

Balance Sheet Abstract (Rs	m)			
Y/e Mar	FY21	FY22	FY23E	FY24E
Non-Current Assets				
Gross Block	19,878	20,067	21,867	23,667
Tangibles	19,878	20,067	21,867	23,667
Intangibles	-	-	-	-
Acc: Dep / Amortization	7,777	8,525	9,738	11,085
Tangibles	7,777	8,525	9,738	11,085
Intangibles	-	-	-	-
Net fixed assets	12,101	11,542	12,129	12,582
Tangibles	12,101	11,542	12,129	12,582
Intangibles	-	-	-	-
Capital Work In Progress	530	849	849	849
Goodwill	-	-	-	-
Non-Current Investments	2,598	8,011	8,912	9,934
Net Deferred tax assets	1,540	1,271	1,271	1,271
Other Non-Current Assets	2,556	3,795	4,129	4,529
Current Assets				
Investments	1,153	7,665	7,665	7,665
Inventories	4,047	7,270	7,405	7,800
Trade receivables	13,380	14,237	16,044	17,255
Cash & Bank Balance	19,392	11,270	11,846	12,700
Other Current Assets	3,830	8,493	4,430	4,486
Total Assets	63,458	73,309	76,959	81,926
Equity				
Equity Share Capital	225	225	225	225
Other Equity	32,289	34,700	37,715	41,614
Total Networth	32,514	34,925	37,940	41,839
Non-Current Liabilities				
Long Term borrowings	222	696	730	767
Provisions	-	-	-	-
Other non current liabilities	-	-	-	-
Current Liabilities				
ST Debt / Current of LT Debt	2,829	2,982	2,947	2,910
Trade payables	11,710	15,074	15,427	16,073
Other current liabilities	17,725	20,904	21,187	21,608
Total Equity & Liabilities	63,458	73,309	76,959	81,926

Source: Company Data, PL Research

August 3, 2022



Cash Flow (Rs m)				
Y/e Mar	FY21	FY22	FY23E	FY24E
PBT	2,752	4,100	5,911	7,645
Add. Depreciation	1,017	995	1,213	1,347
Add. Interest	118	135	265	276
Less Financial Other Income	1,077	1,270	1,426	1,596
Add. Other	12	(947)	(1,426)	(1,596)
Op. profit before WC changes	3,899	4,283	5,963	7,672
Net Changes-WC	4,734	(5)	(1,077)	(1,740)
Direct tax	938	1,030	1,478	1,911
Net cash from Op. activities	7,695	3,247	3,408	4,020
Capital expenditures	(13,130)	(5,036)	(1,800)	(1,800)
Interest / Dividend Income	266	885	1,426	1,596
Others	6,507	(65)	(776)	(851)
Net Cash from Invt. activities	(6,357)	(4,216)	(1,149)	(1,055)
Issue of share cap. / premium	-	-	-	-
Debt changes	947	762	-	-
Dividend paid	-	(788)	(1,419)	(1,835)
Interest paid	(118)	(135)	(265)	(276)
Others	(56)	(45)	-	-
Net cash from Fin. activities	772	(206)	(1,683)	(2,111)
Net change in cash	2,110	(1,175)	575	855
Free Cash Flow	6,861	2,409	1,608	2,220

Source: Company Data, PL Research

Quarterly Financials (Rs m)

Y/e Mar	Q2FY22	Q3FY22	Q4FY22	Q1FY23
Net Revenue	14,693	16,147	19,919	16,545
YoY gr. (%)	28.8	14.5	26.5	57.2
Raw Material Expenses	8,080	9,058	12,385	9,707
Gross Profit	6,613	7,089	7,534	6,838
Margin (%)	45.0	43.9	37.8	41.3
EBITDA	1,100	1,131	1,352	960
YoY gr. (%)	38.7	(23.4)	(3.2)	52.3
Margin (%)	7.5	7.0	6.8	5.8
Depreciation / Depletion	274	290	295	286
EBIT	826	841	1,058	675
Margin (%)	5.6	5.2	5.3	4.1
Net Interest	51	53	101	66
Other Income	368	292	357	205
Profit before Tax	1,143	1,080	1,314	814
Margin (%)	7.8	6.7	6.6	4.9
Total Tax	264	286	290	224
Effective tax rate (%)	23.1	26.5	22.1	27.5
Profit after Tax	879	795	1,024	590
Minority interest	-	-	-	-
Share Profit from Associates	-	-	1	(1)
Adjusted PAT	879	795	1,025	589
YoY gr. (%)	80.5	(23.4)	(4.5)	39.0
Margin (%)	6.0	4.9	5.1	3.6
Extra Ord. Income / (Exp)	-	-	-	-
Reported PAT	879	795	1,025	589
YoY gr. (%)	181.4	(4.6)	(4.5)	39.0
Margin (%)	6.0	4.9	5.1	3.6
Other Comprehensive Income	-	-	-	-
Total Comprehensive Income	879	795	1,025	589
Avg. Shares O/s (m)	113	113	113	113
EPS (Rs)	7.8	7.1	9.1	5.2

Source: Company Data, PL Research

Key Financial Metrics					
Y/e Mar	FY21	FY22	FY23E	FY24E	
Per Share(Rs)					
EPS	21.8	27.7	39.4	50.9	
CEPS	32.0	37.8	50.1	62.9	
BVPS	288.8	310.2	336.9	371.6	
FCF	60.9	21.4	14.3	19.7	
DPS	7.0	9.0	12.6	16.3	
Return Ratio(%)					
RoCE	7.1	8.3	11.8	14.5	
ROIC	13.4	12.9	17.3	20.4	
RoE	7.8	9.3	12.2	14.4	
Balance Sheet					
Net Debt : Equity (x)	(0.5)	(0.4)	(0.4)	(0.4)	
Net Working Capital (Days)	44	38	39	38	
Valuation(x)					
PER	92.4	72.8	51.3	39.6	
P/B	7.0	6.5	6.0	5.4	
P/CEPS	63.0	53.4	40.3	32.1	
EV/EBITDA	59.1	50.3	35.5	27.5	
EV/Sales	4.4	3.5	2.8	2.4	
Dividend Yield (%)	0.3	0.4	0.6	0.8	

Source: Company Data, PL Research





Analyst Coverage Universe

Sr. No.	Company Name	Rating	TP (Rs)	Share Price (Rs)
1	ABB India	Hold	2,293	2,362
2	Apar Industries	Accumulate	1,194	1,124
3	Bharat Electronics	BUY	295	269
4	BHEL	Sell	36	46
5	Cummins India	Accumulate	1,087	1,052
6	Engineers India	BUY	89	60
7	GE T&D India	Hold	102	101
8	Kalpataru Power Transmission	BUY	421	357
9	KEC International	Accumulate	451	397
10	Larsen & Toubro	BUY	2,030	1,751
11	Siemens	Accumulate	2,602	2,522
12	Thermax	Accumulate	2,181	2,049
13	Triveni Turbine	BUY	240	192
14	Voltamp Transformers	UR	-	2,972

PL's Recommendation Nomenclature (Absolute Performance)

 Buy
 : > 15%

 Accumulate
 : 5% to 15%

 Hold
 : +5% to -5%

 Reduce
 : -5% to -15%

 Sell
 : < -15%</td>

Not Rated (NR) : No specific call on the stock
Under Review (UR) : Rating likely to change shortly



ANALYST CERTIFICATION

(Indian Clients)

We/l, Mr. Amit Anwani- MBA (Finance), Mr. Nilesh Soni- BCom, MBA (Finance) Research Analysts, authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

(US Clients)

The research analysts, with respect to each issuer and its securities covered by them in this research report, certify that: All of the views expressed in this research report accurately reflect his or her or their personal views about all of the issuers and their securities; and No part of his or her or their compensation was, is or will be directly related to the specific recommendation or views expressed in this research report.

DISCLAIMER

Indian Clients

Prabhudas Lilladher Pvt. Ltd, Mumbai, India (hereinafter referred to as "PL") is engaged in the business of Stock Broking, Portfolio Manager, Depository Participant and distribution for third party financial products. PL is a subsidiary of Prabhudas Lilladher Advisory Services Pvt Ltd. which has its various subsidiaries engaged in business of commodity broking, investment banking, financial services (margin funding) and distribution of third party financial/other products, details in respect of which are available at www.plindia.com.

This document has been prepared by the Research Division of PL and is meant for use by the recipient only as information and is not for circulation. This document is not to be reported or copied or made available to others without prior permission of PL. It should not be considered or taken as an offer to sell or a solicitation to buy or sell any security.

The information contained in this report has been obtained from sources that are considered to be reliable. However, PL has not independently verified the accuracy or completeness of the same. Neither PL nor any of its affiliates, its directors or its employees accepts any responsibility of whatsoever nature for the information, statements and opinion given, made available or expressed herein or for any omission therein.

Recipients of this report should be aware that past performance is not necessarily a guide to future performance and value of investments can go down as well. The suitability or otherwise of any investments will depend upon the recipient's particular circumstances and, in case of doubt, advice should be sought from an independent expert/advisor.

Either PL or its affiliates or its directors or its employees or its representatives or its clients or their relatives may have position(s), make market, act as principal or engage in transactions of securities of companies referred to in this report and they may have used the research material prior to publication.

PL may from time to time solicit or perform investment banking or other services for any company mentioned in this document.

PL is in the process of applying for certificate of registration as Research Analyst under Securities and Exchange Board of India (Research Analysts) Regulations, 2014

PL submits that no material disciplinary action has been taken on us by any Regulatory Authority impacting Equity Research Analysis activities.

PL or its research analysts or its associates or his relatives do not have any financial interest in the subject company.

PL or its research analysts or its associates or his relatives do not have actual/beneficial ownership of one per cent or more securities of the subject company at the end of the month immediately preceding the date of publication of the research report.

PL or its research analysts or its associates or his relatives do not have any material conflict of interest at the time of publication of the research report.

PL or its associates might have received compensation from the subject company in the past twelve months

PL or its associates might have managed or co-managed public offering of securities for the subject company in the past twelve months or mandated by the subject company for any other assignment in the past twelve months.

PL or its associates might have received any compensation for investment banking or merchant banking or brokerage services from the subject company in the past twelve months.

PL or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past twelve months

PL or its associates might have received any compensation or other benefits from the subject company or third party in connection with the research report.

PL encourages independence in research report preparation and strives to minimize conflict in preparation of research report. PL or its analysts did not receive any compensation or other benefits from the subject Company or third party in connection with the preparation of the research report. PL or its Research Analysts do not have any material conflict of interest at the time of publication of this report.

It is confirmed that Mr. Amit Anwani- MBA (Finance), Mr. Nilesh Soni- BCom, MBA (Finance) Research Analysts of this report have not received any compensation from the companies mentioned in the report in the preceding twelve months

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

The Research analysts for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report.

The research analysts for this report has not served as an officer, director or employee of the subject company PL or its research analysts have not engaged in market making activity for the subject company

Our sales people, traders, and other professionals or affiliates may provide oral or written market commentary or trading strategies to our clients that reflect opinions that are contrary to the opinions expressed herein, and our proprietary trading and investing businesses may make investment decisions that are inconsistent with the recommendations expressed herein. In reviewing these materials, you should be aware that any or all o the foregoing, among other things, may give rise to real or potential conflicts of interest.

PL and its associates, their directors and employees may (a) from time to time, have a long or short position in, and buy or sell the securities of the subject company or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company or act as an advisor or lender/borrower to the subject company or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.

US Clients

This research report is a product of Prabhudas Lilladher Pvt. Ltd., which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of FINRA or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

This report is intended for distribution by Prabhudas Lilladher Pvt. Ltd. only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a 6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investor.

In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors, Prabhudas Lilladher Pvt. Ltd. has entered into an agreement with a U.S. registered broker-dealer, Marco Polo Securities Inc. ("Marco Polo").

Transactions in securities discussed in this research report should be effected through Marco Polo or another U.S. registered broker dealer.

Prabhudas Lilladher Pvt. Ltd.