Kirloskar Oil Engines I BUY

Current weakness transitory; growth drivers intact

Kirloskar Oil Engines' (KOEL) 2QFY24 PAT declined 19%YoY to INR 586mn and was below our estimate of INR 840mn led by weak power genset sales and lower margins. 1QFY24 had seen robust pre-buying activity in power gensets and hence 2Q was expected to be softer (Power gensets 1HFY24 Rev growth healthy at 23% YoY). EBITDA came in at INR986mn; down 15% YoY and EBITDA margin stood at 9% (JMFe: 11%, -210bps YoY) on account of poor absorption of overheads and provision of INR 100mn towards doubtful receivables. Management expects pickup in demand from 2H as demand for CPCB4+ compliant gensets should progressively pick-up. Further, with entry into HHP market (1500-3000KVA) with Optiprime range also increases the addressable market. Push on exports continues with an OEM supply chain partner being appointed for GCC countries. We expect revenue/EPS CAGR of 17%/23% over FY23-26E and maintain Buy with revised price target of INR 630.

- Pre-buying in 1Q negatively impacted revenue growth: Standalone net sales grew by a modest 5% YoY to INR 10.6bn due to 8%YoY decline in power gen sales at INR 3.6bn impacted by pre-buying in 1Q (1HFY24 growth at 23%YoY). Aftermarket segment grew 23% YoY to INR1.8bn, industrial segment grew 5%YoY to INR 2.4bn and exports grew 11% YoY to INR1.3bn. Overall B2B segment grew 19% YoY to INR9.0bn. B2C segment grew 19% YoY to INR1.4bn led by water management (+21%) and farm mechanisation (+13%). LGM reported revenue of INR 5.5bn in 1HFY24 (down c14% YoY).
- Poor fixed cost coverage and provisions lead to lower margins: On a standalone basis, EBITDA was down by 15% YoY/36% QoQ, as EBITDA margin came in at 9.3% (-210bps YoY; JMFe: 11.4%). The margin contraction was driven by poor fixed cost coverage on account of lower sales volume even as RM costs remained almost flat YoY at 66.9% of sales (down 160bp QoQ). EBITDA margin was also impacted by provision of INR 105mn for doubtful receivables (100bp impact). B2B segment reported EBIT margin of 8.2% vs 10.4% in PY, while B2C segment reported EBIT of 2.4% vs -0.5% in 2QFY23. Hence, adj standalone net profit was down by 19% YoY to INR586mn.
- New launches to target HHP market: KOEL reiterated its growth strategy of growing revenue by 2x to INR 65bn in 3 years (starting FY23). This would be supported by entry to HHP market which previously remained untapped for the company and would aid in gaining market share with expansion in margins. The company has introduced gensets in the range of 1500-3000 KVA with name of OptiPrime which is patented technology which would aid company to cater to niche segments like Datacentre, construction etc.
- Maintain BUY with revised TP of INR630: We estimate revenue/EPS CAGR of at 17%/23% CAGR over FY23-26 led by sustained growth in power gen and industrial segments and push towards exports. KOEL's balance sheet remains strong with high RoIC of 45%+. We arrive at an SOTP based price target of INR 630 valuing the standalone business at 16x Sept'25E EPS (16x FY25E EPS earlier) and cash and investments (including Arka Fincap stake) at 1x BV. Maintain Buy.

Financial Summary					(INR mn)
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Net Sales	32,996	41,161	48,042	56,161	65,691
Sales Growth (%)	22.5	24.7	16.7	16.9	17.0
EBITDA	2,687	4,550	5,429	6,735	8,029
EBITDA Margin (%)	8.1	11.1	11.3	12.0	12.2
Adjusted Net Profit	1,553	2,983	3,534	4,511	5,532
Diluted EPS (INR)	10.7	20.6	24.4	31.2	38.3
Diluted EPS Growth (%)	-7.2	92.1	18.5	27.6	22.6
ROIC (%)	29.4	45.3	46.9	56.1	64.8
ROE (%)	7.5	13.3	14.5	16.8	18.6
P/E (x)	18.5	11.7	20.7	16.2	13.2
P/B (x)	1.3	1.5	2.9	2.6	2.3
EV/EBITDA (x)	8.8	7.2	13.3	10.4	8.3
Dividend Yield (%)	1.1	1.0	1.9	2.5	3.0

Source: Company data, JM Financial. Note: Valuations as of 04/Nov/2023



Ashish Shah ashish.shah@jmfl.com | Tel: (91 22) 66303085 Gaurav Uttrani gaurav.uttrani@jmfl.com | Tel: (91 22) 66303372 Vaibhav.Shah@jmfl.com | Tel: (91 22) 66303068

Recommendation and Price Target Current Reco. BUY Previous Reco BUY Current Price Target (12M) 630 Upside/(Downside) 24.5% Previous Price Target 580 Change 8.6% Key Data - KOEL IN INR506 Current Market Price Market cap (bn) INR73 3/US\$0 9 Free Float 59%

Shares in issue (mn)	144.6
Diluted share (mn)	144.6
3-mon avg daily val (mn)	INR377.5/US\$4.5
52-week range	578/261
Sensex/Nifty	64,364/19,231
INR/US\$	83.3

Price Performance			
%	1M	6M	12M
Absolute	-4.8	28.3	82.7
Relative*	-2.4	21.7	73.0

* To the BSE Sensex

JM Financial Research is also available on: Bloomberg - JMFR <GO>, Thomson Publisher & Reuters, S&P Capital IQ, FactSet and Visible Alpha

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

Kirloskar Oil Engines

Exhibit 1. SOTP Valuation				
Business	Valuation basis	Multiple	Value (INRmn)	Per share (INR)
Standalone business	16x Sept'25E Core EPS	16.0	74,439	515
La-Gajjar Machineries	10x FY25E EPS	10.0	798	6
ARKA Fincap	P/B	1.0	10,474	72
Cash and liquid investments	P/B of 1x	1.0	5,441	38
			91,152	630

Source: Company, JM Financial

Exhibit 2. Quarterly Performance-S	tandalone									
Y/E March (INR mn)	2Q FY23	2Q FY24	YoY (%)	1Q FY24	QoQ (%)	2Q FY24E	Var (%)	1H FY23	1H FY24	YoY (%)
Net Sales	10,104	10,590	4.8	12,647	-16.3	11,149	-5.0	19,634	23,237	18.3
Expenditure	8,951	9,603	7.3	11,117	-13.6	9,883	-2.8	17,447	20,707	18.7
EBITDA	1,153	986	-14.5	1,530	-35.5	1,266	-22.1	2,187	2,530	15.7
EBITDA (%)	11.4	9.3	-210bps	12.1	-280bps	11.4	-200bps	11.1	10.9	-30bps
Other income	48	64	33.5	84	-24.3	86	-25.9	101	133	31.6
Depreciation	213	243	14.2	213	14.3	215	13.2	419	456	9.1
EBIT	988	807	-18.3	1,401	-42.4	1,137	-29.0	1,870	2,207	18.0
Interest	10	16	55.3	14	18.5	12	33.3	21	30	38.5
PDB before Eol	977	791	-19.1	1,388	-43.0	1,125	-29.7	1,849	2,177	17.8
Eol	0	0		0		0		0	0	
PBT after Eol	977	791	-19.1	1,388	-43.0	1,125	-29.7	1,849	2,177	17.8
Tax	252	205	-18.6	355	-42.2	287	-28.6	477	560	17.4
Tax rate (%)	25.7	25.9		25.5		25.5		25.8	25.7	
Adj PAT	726	586	-19.3	1,033	-43.3	838	-30.1	1,372	1,617	17.9
Adj EPS (INR)	5.0	4.1	-19.3	7.1	-43.3	5.8	-30.1	9.5	11.2	17.9

Exhibit 3. Cost break-up-Standalone

Y/E March (INR mn)	2Q FY23	2Q FY24	YoY (%)	1Q FY24	QoQ (%)	2Q FY24E	Var (%)	1H FY23	1H FY24	YoY (%)
COGS	6,740	7,081	5.1	8,653	-18.2	7,559	-6.3	13,352	15,735	17.8
as a % of sales	66.7	66.9	20bps	68.4	-160bps	67.8	-90bps	68.0	67.7	-30bps
Staff Cost	567	744	31.3	658	13.1	624	19.1	1,122	1,402	24.9
as a % of sales	5.6	7.0	140bps	5.2	180bps	5.6	140bps	5.7	6.0	30bps
Other Expenditure	1,644	1,778	8.2	1,806	-1.5	1,700	4.6	2,974	3,571	20.1
as a % of sales	16.3	16.8	50bps	14.3	250bps	15.2	150bps	15.1	15.4	20bps

Source: Company, JM Financial

Exhibit 4. Segmental perform	ance-Standalone							
Y/E March - INR mn	2Q FY23	2Q FY24	YoY (%)	1Q FY24	QoQ (%)	1H FY23	1H FY24	YoY (%)
Revenue								
B2B	8,780	9,040	3.0	10,960	-17.5	16,830	20,000	18.8
% of net sales	87%	85%		87%		86%	86%	
Powergen	3,930	3,600	-8.4	6,030	-40.3	7,820	9,630	23.1
% of net sales	39%	34%		48%		40%	41%	
Industrial	2,230	2,350	5.4	2,320	1.3	4,210	4,670	10.9
% of net sales	22%	22%				21%	20%	
Aftermarket	1,500	1,840	22.7	1,750	5.1	3,000	3,590	19.7
% of net sales	15%	17%		14%		15%	15%	
International	1,120	1,250	11.6	860	45.3	1,800	2,110	17.2
% of net sales	11%	12%		7%		9%	9%	
B2C	1,200	1,430	19.2	1,600	-10.6	2,590	3,030	17.0
% of net sales	12%	14%		13%		13%	13%	
Water management	960	1,160	20.8	1,340	-13.4	2,100	2,500	19.0
% of net sales	10%	11%		11%		11%	11%	
Farm mechanisation	240	270	12.5	260	3.8	490	530	8.2
% of net sales	2%	3%		2%		2%	2%	
Others	124	120	-3.5	87	37.6	214	207	-3.5
% of net sales	1%	1%		1%		1%	1%	
Total Sales	10,104	10,590	4.8	12,647	-16.3	19,634	23,237	18.3

Source: Company, JM Financial

Exhibit 5. Segmental per	ormance-consolid	lated						
Y/E March - INR mn	2Q FY23	2Q FY24	YoY (%)	1Q FY24	QoQ (%)	1H FY23	1H FY24	YoY (%)
Revenue								
B2B	8,928	9,176	2.8	11,056	-17.0	17,092	20,232	18.4
% of net sales	73%	70%		72%		71%	71%	
B2C	2,521	2,604	3.3	3,095	-15.9	5,493	5,699	3.8
% of net sales	21%	20%		20%		23%	20%	
Others	833	1,268	52.3	1,282	-1.1	1,610	2,551	58.4
% of net sales	7%	10%		8%		7%	9%	
Total Sales	12,281	13,048	6.2	15,434	-15.5	24,195	28,482	17.7
PBIT								
B2B	930	755	-18.8	1,324	-42.9	1,689	2,079	23.1
EBIT Margin (%)	10.4%	8.2%		12.0%		9.9%	10.3%	
B2C	-12	63	-610.5	174	-63.6	139	237	70.2
EBIT Margin (%)	-0.5%	2.4%		5.6%		2.5%	4.2%	
Others	223	251	12.3	215	16.6	429	465	8.5
EBIT Margin (%)	26.8%	19.8%		16.8%		26.6%	18.2%	
Total Sales	27	14	-46.3	16	-11.7	51	31	-39.9

Source: Company, JM Financial

Key conference call takeaways

- Standing firm on 2X3Y: Management reiterated their growth strategy of growing revenue by 2x in next 3 years. Management highlighted that company foresees strong demand momentum given a) strong growth in exports as new emission norms are at par with developed markets and will give access to new markets, b) content addition through CPCB-4+ norms like after treatment systems to increases costs by 25-50% and pricing decisions will be taken appropriately and c) focus on aftermarket sales to drive higher growth in the segment, which was muted since a long period of time.
- Outlook for the 2H seems to be healthy with pickup in demand from segments like infrastructure, agriculture and continuation of healthy demand from exports market. However expect ease in supply chain challenges from next year.
- Adding new territories in exports market: Management highlighted that exports are witnessing a healthy demand improvement. In 2Q24, company added new GCC territory where they intend to increase offering and grow exports as a % of revenue.
- Levers of margins: a) expanding HHP market with optiprime range b) growing aftermarket segment and c) expanding reach in exports.
- Launched Optiprime to target upto 3000KVA market: KOEL introduced 1500-3000 kVA segment specifically to target high growth market like Data centre, construction etc. This would lead to gain in market share and improve margins.
- Working capital: Higher working capital was on account of inventory procurement to meet the supply chain challenges on account of higher demand as both the norms were in play CBCB II & IV.
- NBFC business: Total loan book of INR 40.3bn with 32% in Wholesale, 23% in Real estate, 8% in warehousing, etc and 37% in SME/MSME. Gross NPA of 0.19% and Net NPA of 0.05%
- Focus on aftermarket sales to drive higher growth in the segment, which was muted since a long period of time.
- KOEL has introduced new products on the alternative fuel solutions front where they are anticipating increase in demand with stricter norms.

Financial Tables (Standalone)

Income Statement				(INR mn)
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Net Sales	32,996	41,161	48,042	56,161	65,691
Sales Growth	22.5%	24.7%	16.7%	16.9%	17.0%
Other Operating Income	0	0	0	0	0
Total Revenue	32,996	41,161	48,042	56,161	65,691
Cost of Goods Sold/Op. Exp	22,912	27,897	32,429	37,740	44,144
Personnel Cost	2,070	2,365	2,930	3,261	3,664
Other Expenses	5,327	6,349	7,254	8,424	9,854
EBITDA	2,687	4,550	5,429	6,735	8,029
EBITDA Margin	8.1%	11.1%	11.3%	12.0%	12.2%
EBITDA Growth	-1.9%	69.3%	19.3%	24.1%	19.2%
Depn. & Amort.	772	848	967	1,024	1,081
EBIT	1,915	3,703	4,462	5,712	6,948
Other Income	248	273	341	423	568
Finance Cost	62	54	60	80	90
PBT before Excep. & Forex	2,100	3,922	4,744	6,055	7,426
Excep. & Forex Inc./Loss(-)	527	-281	0	0	0
PBT	2,627	3,641	4,744	6,055	7,426
Taxes	547	939	1,210	1,544	1,894
Extraordinary Inc./Loss(-)	0	0	0	0	0
Assoc. Profit/Min. Int.(-)	0	0	0	0	0
Reported Net Profit	2,080	2,703	3,534	4,511	5,532
Adjusted Net Profit	1,553	2,983	3,534	4,511	5,532
Net Margin	4.7%	7.2%	7.4%	8.0%	8.4%
Diluted Share Cap. (mn)	144.6	144.6	144.6	144.6	144.6
Diluted EPS (INR)	10.7	20.6	24.4	31.2	38.3
Diluted EPS Growth	-7.2%	92.1%	18.5%	27.6%	22.6%
Total Dividend + Tax	795	723	1,414	1,804	2,213
Dividend Per Share (INR)	5.5	5.0	9.8	12.5	15.3

Balance Sheet					(INR mn)
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Shareholders' Fund	21,391	23,315	25,436	28,142	31,462
Share Capital	289	289	289	289	289
Reserves & Surplus	21,102	23,026	25,147	27,853	31,173
Preference Share Capital	0	0	0	0	(
Minority Interest	0	0	0	0	(
Total Loans	968	751	1,551	1,051	55
Def. Tax Liab. / Assets (-)	146	61	61	61	6
Total - Equity & Liab.	22,505	24,128	27,048	29,255	32,074
Net Fixed Assets	4,896	4,915	4,948	4,924	4,844
Gross Fixed Assets	15,934	16,463	17,463	18,463	19,463
Intangible Assets	0	0	0	0	(
Less: Depn. & Amort.	11,244	11,706	12,673	13,697	14,77
Capital WIP	206	158	158	158	158
Investments	16,722	16,925	16,925	16,925	16,92
Current Assets	8,504	11,554	16,758	20,945	26,14
Inventories	3,031	4,685	5,265	6,155	7,19
Sundry Debtors	3,945	4,672	5,923	6,924	8,09
Cash & Bank Balances	314	338	2,674	4,482	6,88
Loans & Advances	373	296	1,579	1,846	2,16
Other Current Assets	840	1,563	1,316	1,539	1,80
Current Liab. & Prov.	7,617	9,267	11,583	13,540	15,83
Current Liabilities	5,098	6,326	7,897	9,232	10,79
Provisions & Others	2,519	2,941	3,685	4,308	5,03
Net Current Assets	887	2,287	5,175	7,405	10,30
Total – Assets	22,504	24,128	27,048	29,255	32,07

Source: Company, JM Financial

Source: Company, JM Financial

Cash Flow Statement				(INR mn)
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
Profit before Tax	2,627	3,641	4,744	6,055	7,426
Depn. & Amort.	772	848	967	1,024	1,081
Net Interest Exp. / Inc. (-)	-59	35	0	0	0
Inc (-) / Dec in WCap.	-157	-1,025	-552	-423	-496
Others	-673	61	0	0	0
Taxes Paid	-567	-960	-1,210	-1,544	-1,894
Operating Cash Flow	1,944	2,600	3,949	5,112	6,117
Capex	-812	-1,213	-1,000	-1,000	-1,000
Free Cash Flow	1,132	1,387	2,949	4,112	5,117
Inc (-) / Dec in Investments	-8,182	-343	0	0	0
Others	0	0	0	0	0
Investing Cash Flow	-8,994	-1,556	-1,000	-1,000	-1,000
Inc / Dec (-) in Capital	0	0	0	0	0
Dividend + Tax thereon	-578	-723	-1,414	-1,804	-2,213
Inc / Dec (-) in Loans	7,723	-218	800	-500	-500
Others	-75	-79	0	0	0
Financing Cash Flow	7,070	-1,021	-614	-2,304	-2,713
Inc / Dec (-) in Cash	19	24	2,336	1,808	2,404
Opening Cash Balance	294	314	338	2,674	4,482
Closing Cash Balance	313	338	2,674	4,482	6,886

Dupont Analysis Y/E March FY22A FY23A FY24E FY25E FY26E Net Margin 7.2% 7.4% 8.0% 8.4% 4.7% Asset Turnover (x) 1.5 1.8 1.9 2.0 2.1 Leverage Factor (x) 1.0 1.1 1.0 1.0 1.0 RoE 7.5% 13.3% 14.5% 16.8% 18.6%

Key Ratios					
Y/E March	FY22A	FY23A	FY24E	FY25E	FY26E
BV/Share (INR)	147.9	161.2	175.9	194.6	217.6
ROIC	29.4%	45.3%	46.9%	56.1%	64.8%
ROE	7.5%	13.3%	14.5%	16.8%	18.6%
Net Debt/Equity (x)	0.0	0.0	0.0	-0.1	-0.2
P/E (x)	18.5	11.7	20.7	16.2	13.2
P/B (x)	1.3	1.5	2.9	2.6	2.3
EV/EBITDA (x)	8.8	7.2	13.3	10.4	8.3
EV/Sales (x)	2.2	1.8	1.5	1.2	1.0
Debtor days	44	41	45	45	45
Inventory days	34	42	40	40	40
Creditor days	61	63	68	68	68

Source: Company, JM Financial

Source: Company, JM Financial

Kirloskar Oil Engines

History of Recommendation and Target Price			
Date	Recommendation	Target Price	% Chg.
3-Feb-20	Buy	210	
9-Apr-20	Buy	130	-38.1
1-Jul-20	Buy	135	3.8
6-Aug-20	Buy	150	11.1
4-Nov-20	Buy	170	13.3
11-Feb-21	Buy	220	29.4
15-May-21	Buy	300	36.4
13-Aug-21	Buy	315	5.0
31-Oct-21	Buy	320	1.6
12-Feb-22	Buy	225	-29.7
22-May-22	Buy	225	0.0
11-Aug-22	Buy	250	11.1
24-Aug-22	Buy	250	0.0
14-Nov-22	Buy	360	44.0
13-Feb-23	Buy	400	11.1
6-Mar-23	Buy	400	0.0
19-May-23	Buy	480	20.0
16-Aug-23	Buy	580	20.8



APPENDIX I

JM Financial Institutional Securities Limited

Corporate Identity Number: U67100MH2017PLC296081

Member of BSE Ltd. and National Stock Exchange of India Ltd.

SEBI Registration Nos.: Stock Broker - INZ000163434, Research Analyst - INH000000610

Registered Office: 7th Floor, Cnergy, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India.

Board: +91 22 6630 3030 | Fax: +91 22 6630 3488 | Email: jmfinancial.research@jmfl.com | www.jmfl.com

Compliance Officer: Mr. Sahil Salastekar | Tel: +91 22 6224 1073 | Email: sahil.salastekar@jmfl.com

Grievance officer: Mr. Sahil Salastekar | Tel: +91 22 6224 1073 | Email: instcompliance@jmfl.com

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Definition of ratings			
Rating	Meaning		
Buy	Total expected returns of more than 10% for stocks with market capitalisation in excess of INR 200 billion and REITs* and more than 15% for all other stocks, over the next twelve months. Total expected return includes dividend yields.		
Hold	Price expected to move in the range of 10% downside to 10% upside from the current market price for stocks with market capitalisation in excess of INR 200 billion and REITs* and in the range of 10% downside to 15% upside from the current market price for all other stocks, over the next twelve months.		
Sell	Price expected to move downwards by more than 10% from the current market price over the next twelve months.		

* REITs refers to Real Estate Investment Trusts.

Research Analyst(s) Certification

The Research Analyst(s), 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 or indirectly related to the specific recommendations or views expressed in this research report.

Important Disclosures

This research report has been prepared by JM Financial Institutional Securities Limited (JM Financial Institutional Securities) to provide information about the company(ies) and sector(s), if any, covered in the report and may be distributed by it and/or its associates solely for the purpose of information of the select recipient of this report. This report and/or any part thereof, may not be duplicated in any form and/or reproduced or redistributed without the prior written consent of JM Financial Institutional Securities. This report has been prepared independent of the companies covered herein.

JM Financial Institutional Securities is registered with the Securities and Exchange Board of India (SEBI) as a Research Analyst and a Stock Broker having trading memberships of the BSE Ltd. (BSE) and National Stock Exchange of India Ltd. (NSE). No material disciplinary action has been taken by SEBI against JM Financial Institutional Securities in the past two financial years which may impact the investment decision making of the investor. Registration granted by SEBI and certification from the National Institute of Securities Market (NISM) in no way guarantee performance of JM Financial Institutional Securities or provide any assurance of returns to investors.

JM Financial Institutional Securities renders stock broking services primarily to institutional investors and provides the research services to its institutional clients/investors. JM Financial Institutional Securities and its associates are part of a multi-service, integrated investment banking, investment management, brokerage and financing group. JM Financial Institutional Securities and/or its associates might have provided or may provide services in respect of managing offerings of securities, corporate finance, investment banking, mergers & acquisitions, broking, financing or any other advisory services to the company(ies) covered herein. JM Financial Institutional Securities and/or its associates might have received during the past twelve months or may receive compensation from the company(ies) mentioned in this report for rendering any of the above services.

JM Financial Institutional Securities and/or 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 company(ies) mentioned herein 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 company(ies) covered under this report or (c) act as an advisor or lender/borrower to, or may have any financial interest in, such company(ies) or (d) considering the nature of business/activities that JM Financial Institutional Securities is engaged in, it may have potential conflict of interest at the time of publication of this report on the subject company(ies).

Neither JM Financial Institutional Securities nor its associates or the Research Analyst(s) named in this report or his/her relatives individually own one per cent or more securities of the company(ies) covered under this report, at the relevant date as specified in the SEBI (Research Analysts) Regulations, 2014.

The Research Analyst(s) principally responsible for the preparation of this research report and their immediate relatives are prohibited from buying or selling debt or equity securities, including but not limited to any option, right, warrant, future, long or short position issued by company(ies) covered under this report. The Research Analyst(s) principally responsible for the preparation of this research report or their immediate relatives (as defined under SEBI (Research Analysts) Regulations, 2014); (a) do not have any financial interest in the company(ies) covered under this report or (b) did not receive any compensation from the company(ies) covered under this report, or from any third party, in connection with this report or (c) do not have any other material conflict of interest at the time of publication of this report. Research Analyst(s) are not serving as an officer, director or employee of the company(ies) covered under this report.

While reasonable care has been taken in the preparation of this report, it does not purport to be a complete description of the securities, markets or developments referred to herein, and JM Financial Institutional Securities does not warrant its accuracy or completeness. JM Financial Institutional Securities may not be in any way responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. This report is provided for information only and is not an investment advice and must not alone be taken as the basis for an investment decision.

This research report is based on the fundamental research/analysis conducted by the Research Analyst(s) named herein. Accordingly, this report has been prepared by studying/focusing on the fundamentals of the company(ies) covered in this report and other macro-economic factors. JM Financial Institutional Securities may have also issued or may issue, research reports and/or recommendations based on the technical/quantitative analysis of the company(ies) covered in this report by studying and using charts of the stock's price movement, trading volume and/or other volatility parameters. As a result, the views/recommendations expressed in such technical research reports could be inconsistent or even contrary to the views contained in this report.

The investment discussed or views expressed or recommendations/opinions given herein may not be suitable for all investors. The user assumes the entire risk of any use made of this information. The information contained herein may be changed without notice and JM Financial Institutional Securities reserves the right to make modifications and alterations to this statement as they may deem fit from time to time.

This report is neither an offer nor solicitation of an offer to buy and/or sell any securities mentioned herein and/or not an official confirmation of any transaction.

This report is not directed or intended for distribution to, or use by any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject JM Financial Institutional Securities and/or its affiliated company(ies) to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to a certain category of investors. Persons in whose possession this report may come, are required to inform themselves of and to observe such restrictions.

Additional disclosure only for U.S. persons: JM Financial Institutional Securities has entered into an agreement with JM Financial Securities, Inc. ("JM Financial Securities"), a U.S. registered broker-dealer and member of the Financial Industry Regulatory Authority ("FINRA") in order to conduct certain business in the United States in reliance on the exemption from U.S. broker-dealer registration provided by Rule 15a-6, promulgated under the U.S. Securities Exchange Act of 1934 (the "Exchange Act"), as amended, and as interpreted by the staff of the U.S. Securities and Exchange Commission ("SEC") (together "Rule 15a-6").

This research report is distributed in the United States by JM Financial Securities in compliance with Rule 15a-6, and as a "third party research report" for purposes of FINRA Rule 2241. In compliance with Rule 15a-6(a)(3) this research report is distributed only to "major U.S. institutional investors" as defined in Rule 15a-6 and is not intended for use by any person or entity that is not a major U.S. institutional investor. If you have received a copy of this research report and are not a major U.S. institutional investor, you are instructed not to read, rely on, or reproduce the contents hereof, and to destroy this research or return it to JM Financial Institutional Securities or to JM Financial Securities.

This research report is a product of JM Financial Institutional Securities, which is the employer of the research analyst(s) solely responsible for its content. The research analyst(s) preparing this research report is/are resident outside the United States and are not associated persons or employees of any U.S. registered broker-dealer. Therefore, the analyst(s) are not subject to supervision by a U.S. broker-dealer, or otherwise required to satisfy the regulatory licensing requirements of FINRA and may not be subject to the Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Any U.S. person who is recipient of this report that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, must contact, and deal directly through a U.S. registered representative affiliated with a broker-dealer registered with the SEC and a member of FINRA. In the U.S., JM Financial Institutional Securities has an affiliate, JM Financial Securities, Inc. located at 1325 Avenue of the Americas, 28th Floor, Office No. 2821, New York, New York 10019. Telephone +1 (332) 900 4958 which is registered with the SEC and is a member of FINRA and SIPC.

Additional disclosure only for U.K. persons: Neither JM Financial Institutional Securities nor any of its affiliates is authorised in the United Kingdom (U.K.) by the Financial Conduct Authority. As a result, this report is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) in connection with the matters to which this report relates may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This report is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons.

Additional disclosure only for Canadian persons: This report is not, and under no circumstances is to be construed as, an advertisement or a public offering of the securities described herein in Canada or any province or territory thereof. Under no circumstances is this report to be construed as an offer to sell securities or as a solicitation of an offer to buy securities in any jurisdiction of Canada. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the registration requirement in the relevant province or territory of Canada in which such offer or sale is made. This report is not, and under no circumstances is it to be construed as, a prospectus or an offering memorandum. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offerice. If you are located in Canada, this report has been made available to you based on your representation that you are an "accredited investor" as such term is defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Under no circumstances is the needs of the recipient. Canadian recipients are advised that JM Financial Securities, Inc., JM Financial Institutional Securities Limited, their affiliates and authorized agents are not responsible for, nor do they accept, any liability whatsoever for any direct or consequential loss arising from any use of this research report or the information contained herein.