

Bosch

Estimate change	
TP change	←
Rating change	\leftarrow

Bloomberg	BOS IN
Equity Shares (m)	29
M.Cap.(INRb)/(USDb)	576.2 / 6.9
52-Week Range (INR)	20932 / 16309
1, 6, 12 Rel. Per (%)	2/-5/7
12M Avg Val (INR M)	473

Financials & Valuations (INR b)

		(**************************************	
INR b	FY23	FY24E	FY25E
Sales	149.3	171.0	187.5
EBITDA	18.1	20.6	26.0
Adj. PAT	14.2	16.6	20.3
EPS (INR)	483.0	562.1	687.4
EPS Gr. (%)	17.0	16.4	22.3
BV/Sh. (INR)	3,734	4,199	4,546
Ratios			
RoE (%)	13.1	14.2	15.7
RoCE (%)	17.5	19.2	21.1
Payout (%)	99.4	39.2	49.5
Valuations			
P/E (x)	40.5	34.8	28.5
P/BV (x)	5.2	4.7	4.3
Div. Yield (%)	2.5	1.5	1.7
FCF Yield (%)	1.0	0.8	2.2

Shareholding pattern (%)

As On	Sep-23	Jun-23	Sep-22
Promoter	70.5	70.5	70.5
DII	17.1	16.7	16.3
FII	3.6	3.9	3.6
Others	8.9	8.9	9.5

FII Includes depository receipts

CMP:INR19,535 TP: INR18,500 (-5%) Neutral

Weaker mix and high trading content drag margins

Focus on localization should bear results in the next 4-5 years

- Bosch (BOS)'s overall 2QFY24 performance remained muted, mainly on the margin front, where adverse mix, higher trading content, and weaker FX dragged margins to 11.9% (v/s est. 13%). BOS remains committed to localization, and this would yield results in the medium term, thus aiding margins. However, we do not foresee margins recovering above 15% over the next 2-3 years due to structural changes in the business.
- We cut our FY24E/FY25E EPS by ~5%/2% to reflect: a) slower growth in both auto/non-auto divisions, b) weaker margins. We reiterate our Neutral rating on the stock with a TP of INR18,500 (based on ~25x Dec'25E EPS).

Better-than-industry growth in autos

- Revenue/EBITDA/adj. PAT rose 13%/14%/8% YoY to INR41.3b/INR4.9b/ INR4b in 2QFY24. 1HFY24 revenue/EBITDA/adj. PAT increased 15%/9%/ 15% YoY.
- Revenue from the auto segment jumped 13% YoY, whereas non-auto segment revenue rose 8% YoY.
- Gross margin eroded 190bp YoY (-230bp QoQ) to 33.2%. This was due to a weaker mix (decline in tractors), higher traded goods, and forex impact.
- Lower gross margins combined with higher employee costs (+60bp YoY; as a % of sales) were offset by lower other expenses (-320bp YoY; as a % of sales) Hence, EBITDA margin contracted 10bp YoY to 11.9% (v/s est.13%). Lower other expenses were on account of: a) reduced spending on new business (due to the sale of business), and b) a reduction in technical fees for localization in ECUs and common rail injectors.
- Adj. PAT came in at INR4b (v/s est.INR4.5b).
- There was an exceptional gain of INR7.85b due to the business transfer agreement with Automobility Services for transfer of its 'Project House Mobility Solutions' business.

Highlights from the management commentary

- Segmental performance: 2QFY24 remained a mixed bag as PV/CV production grew YoY but tractors/2Ws declined.
- In autos, powertrain segment solutions grew 12.3% YoY (outperformance when compared to broader industry, driven by increased content per vehicle, mainly of exhaust gas treatment (EGT) components). The 2Ws business segment grew 18% YoY (v/s industry decline of 1% YoY) mainly on account of BOS's greater presence in premium motorcycles (v/s commuter motorcycles) which grew due to easing of chip shortages.
- ➤ The non-auto segment grew ~8% YoY, led by 10% YoY growth in consumer products and building technologies growth of 4% YoY. Going forward, BOS expects the upcoming festival season to see healthy volume growth across categories along with exports recovery.

Jinesh Gandhi - Research analyst (Jinesh@MotilalOswal.com)

Research analyst: Amber Shukla (Amber.Shukla@MotilalOswal.com) | Aniket Desai (Aniket.Desai@motilaloswal.com)

- **Focus on localization:** Gross margin remained hit by increased trading content. Currently, EGT's are imported and it is focusing on localizing its child parts.
- It has achieved 68% localization (v/s 50% few years ago) in the CRDI component. However, it does not expect this to go 100% (its legacy product mechanical pump has 95% localization).
- > It is targeting a mid-term time horizon (4-5 years) for this localization.
- Trials of hydrogen truck has commenced in Bengaluru. It is fitted with a new turbocharger with increase in low end performance. Engine calibration activities to meet BS6 stage 2 are underway.
- Exports: There has been a YoY decline for injectors used in PVs which BOS exports to EU markets. EU/US/China markets continue to remain slow.
- Capex for FY24 would be INR3.5b, mainly for localization of common rail/EGT child parts. Further, it would be utilized for new machinery.

Valuation and view

- We believe BOS would be outperforming the underlying auto industry growth with new order wins and content increases, though visibility for margin recovery to 15-16% is very low. More importantly, BOS is yet to establish leadership in EV components in the 2W and PV segments.
- The stock trades at ~34.8x/28.5x FY24E/FY25E EPS (vs. 10-year LPA at ~37x). The valuations have been de-rated due to dilution in its competitive positioning as well as increasing risk of EVs. While these negatives are priced in, there are no material catalysts visible for a re-rating of the stock. Hence, we reiterate our Neutral rating with a TP of INR18,500 (premised on ~25x Dec'25E EPS).

Quarterly performance (S/A)											(INR m)
Y/E March		FY2	23			FY2	4E		FY23	FY24E	
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE			2QE
Net Sales	35,444	36,616	36,599	40,634	41,584	41,301	42,455	45,682	1,49,293	1,71,022	43,207
YoY Change (%)	45.1	25.5	17.7	22.7	17.3	12.8	16.0	12.4	26.7	14.6	18.0
RM Cost (% of sales)	64.6	64.9	60.0	64.0	64.5	66.8	61.0	60.3	63.4	63.1	63.3
Staff Cost (% of sales)	7.6	7.5	7.4	8.1	7.4	8.1	7.6	7.2	7.7	7.6	7.2
Other Expenses (% of sales)	15.6	16.4	23.3	15.9	17.9	13.2	20.0	19.1	16.8	17.3	16.5
EBITDA	4,495	4,311	4,037	5,224	4,679	4,913	4,851	6,136	18,067	20,579	5,619
Margins (%)	12.7	11.8	11.0	12.9	11.3	11.9	11.4	13.4	12.1	12.0	13.0
Depreciation	648	919	1,083	1,206	921	1,013	1,150	1,222	3,856	4,306	950
Interest	36	19	20	46	308	122	100	70	121	600	25
Other Income	566	1,497	1,312	1,359	1,875	1,542	1,450	1,271	4,734	6,138	1,300
PBT before EO expense	4,377	4,870	4,246	5,331	5,325	5,320	5,051	6,115	18,824	21,810	5,944
Extra-Ord expense	0	0	0	0	0	-7,850	0	0	0	-7,850	0
PBT after EO Expense	4,377	4,870	4,246	5,331	5,325	13,170	5,051	6,115	18,824	29,660	5,944
Tax	1,035	1,146	1,057	1,341	1,235	3,181	1,222	1,480	4,579	7,119	1,438
Tax Rate (%)	23.6	23.5	24.9	25.2	23.2	24.2	24.2	24.2	24.3	24.0	24.2
Reported PAT	3,342	3,724	3,189	3,990	4,090	9,989	3,829	4,634	14,245	22,542	4,506
Adj PAT	3,342	3,724	3,189	3,990	4,090	4,023	3,829	4,634	14,245	16,172	4,506
YoY Change (%)	28.7	0.1	35.7	13.8	22.4	8.0	20.1	16.1	17.0	13.5	21.0

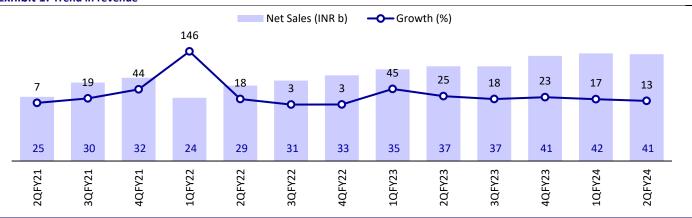
E: MOFSL Estimates

Segmental Mix (INR m)

		FY2	23	FY24E	FY24E		
	1Q	2Q	3Q	4Q	1Q	2Q	
Auto	31,092	31,505	32,399	34,165	36,232	35,708	1,29,161
Growth (%)	44.7	29.3	18.2	26.0	16.5	13.3	28.7
PBIT margin (%)	13.6	12.1	11.2	12.1	10.9	12.5	12.2
Contribution (%)	87.7	86.0	88.6	84.1	87.1	86.5	86.5
Non-Auto	4,388	5,237	4,464	6,684	5,424	5,634	20,787
Growth (%)	48.0	5.1	8.6	6.2	23.6	7.6	14.5
PBIT margin (%)	9.8	12.6	11.7	12.4	16.4	9.3	11.8
Contribution (%)	12.4	14.3	12.2	16.4	13.0	13.6	13.9
a) Consumer goods	3,188	3,528	2,547	4,757	3,754	3,897	14,034
Growth (%)	52.2	(0.3)	5.2	(1.1)	17.8	10.5	10.9
PBIT margin (%)	5.8	11.1	6.2	8.9	15.5	7.2	8.2
b) Others	1,200	1,709	1,917	1,927	1,670	1,737	6,753.0
Growth (%)	38.1	18.1	13.3	29.7	39.2	1.6	22.9
PBIT margin (%)	20.4	15.9	19.0	21.2	18.3	14.0	19.1
Growth (%)	45.1	25.5	16.9	22.7	17.3	12.8	26.8

E:MOFSL Estimates

Exhibit 1: Trend in revenue



Source: Company, MOFSL

Exhibit 2: EBITDA and EBITDA margin trends

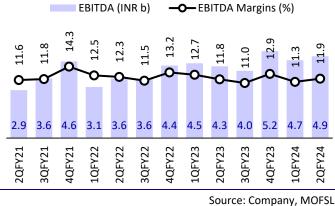
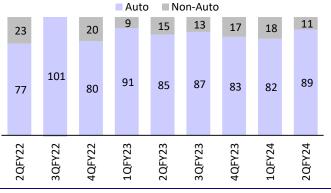


Exhibit 3: Share of Auto and non-Auto in PBIT



Source: Company, MOFSL

Valuation and view

Strong industry positioning; technology focus enables higher growth visibility

BOS has a long-term strategy to shape the market in key technologies with innovative products and solutions. Its stance of being a technology-agnostic partner with customers, governments, and stakeholders continues.

3 9 November 2023

MOTILAL OSWAL

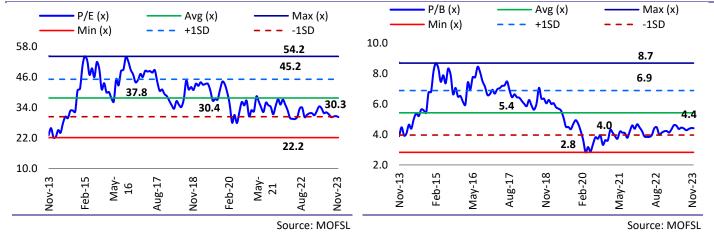
Since CY17, BOS has executed 79 BS-VI projects in PVs/CVs with major OEMs. Post the Covid-19 crisis as well, it plans to continue with critical investments in competence development and solutions designed and developed for India.

- In the non-Auto businesses, BOS has adopted a two-pronged approach. It continues to introduce 'fit for the market' products and solutions and plans to increase its 'go to the market' footprint, using both offline and digital platforms.
- The electrification of 2Ws/3Ws opens up new growth avenues as BOS will be better positioned in these segments for EVs. BOS plans to invest INR20b over five years for the localization of advanced automotive technologies (INR10b) and expansion into digital platforms (~INR10b in the mobility marketplace, mobility Cloud platform, etc.). Our estimates do not factor in any material contributions from e-2W/3Ws as the competitive landscape is yet to stabilize.
- With improving localization and operating leverage in FY25E, EBITDA margin will recover to ~13.9%, after falling to ~10.3%/12.4% in FY21/FY22 (vs. 12.1% in FY23). This would result in a 19% EPS CAGR over FY23-25E (on the back of 12% revenue CAGR). We estimate RoE to improve to ~15.7% (from 13.1% in FY23) and RoIC to touch ~25.1% by FY25E (from 20% in FY23).
- We lower our FY24E/FY25E EPS by ~5%/2% to reflect for a) slower growth in both auto/non-auto division b) weaker margins.
- Valuations have corrected in line with its muted earnings over the last four years and a dilution in its competitive positioning. It would be outperforming the underlying auto industry growth with new order wins, though visibility for margin recovery to 15-16% is very low. The stock trades at ~34.8x/28.5x FY24E/FY25E EPS (v/s 10-year LPA at ~37x). The valuations have been de-rated due to dilution in its competitive positioning as well as increasing risk of EVs. While these negatives are priced in, there are no material catalysts visible for a re-rating of the stock. Hence, we reiterate our Neutral rating with a TP of INR18,500 (premised on ~25x Dec'25E EPS).

Exhibit 4: Revisions to our estimates

(INR b)	FY24E			FY25E		
	Rev	Old	Chg (%)	Rev	Old	Chg (%)
Net Sales	171.0	174.4	-1.9	187.5	193.3	-3.0
EBITDA Margin (%)	12.0	12.5	-50bp	13.9	14.0	-20bp
PAT	16.6	17.5	-5.1	20.3	20.8	-2.4
EPS (INR)	562.1	592.1	-5.1	687.4	704.6	-2.4

Exhibit 5: P/E and P/B bands



Key operating indicators

Exhibit 6: Trend in sales

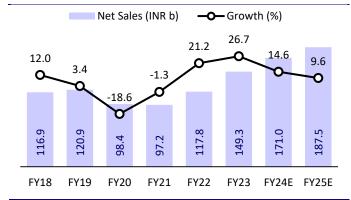


Exhibit 7: Segment mix

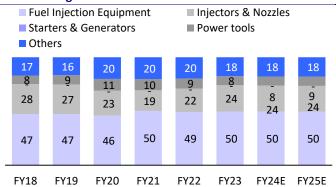


Exhibit 8: Gross margin vs. EBITDA margin

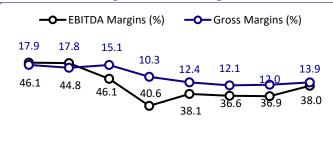
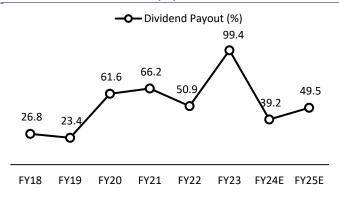


Exhibit 9: Trend in dividend payout



FY18 FY19 FY20 FY21 FY22 FY23 FY24E FY25E

Exhibit 10: FCF and net cash

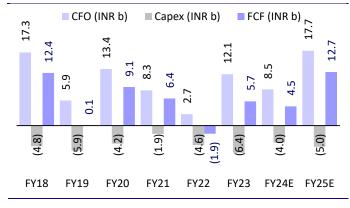


Exhibit 11: Cash, as a percentage of capital employed, stands at $^{\sim}67\%$

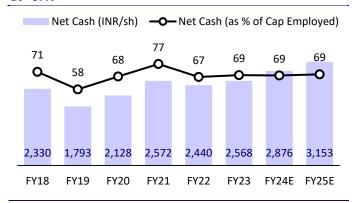
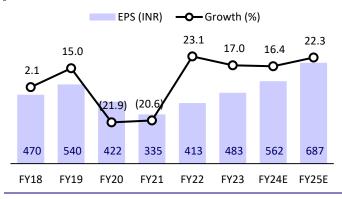
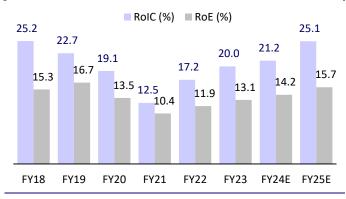


Exhibit 12: EPS and EPS growth trends



Source: Company, MOFSL

Exhibit 13: Trend in BOS' return profile



Source: Company, MOFSL

Financials and valuations

Y/E March	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Net Op. Revenues	1,20,850	98,416	97,180	1,17,816	1,49,293	1,71,022	1,87,518
Change (%)	3.4	-18.6	-1.3	21.2	26.7	14.6	9.6
EBITDA	21,541	14,834	10,039	14,624	18,067	20,579	25,978
Margin (%)	17.8	15.1	10.3	12.4	12.1	12.0	13.9
Depreciation	4,021	3,833	3,414	3,243	3,856	4,306	4,807
EBIT	17,520	11,001	6,624	11,381	14,211	16,273	21,172
Fin. charges	133	102	140	289	121	600	500
Other Income	5,953	5,466	5,040	3,909	4,734	6,138	6,020
PBT bef. EO Exp.	23,340	16,365	11,524	15,001	18,824	21,810	26,692
EO Income/(Exp)	0	-8,416	-5,555	0	0	7,850	0
PBT after EO Exp.	23,340	7,948	5,969	15,001	18,824	29,660	26,692
Current Tax	7,051	3,324	1,630	1,930	4,338	7,119	6,421
Deferred Tax	355	-1,424	-784	899	241	0	0
Tax Rate (%)	31.7	23.9	14.2	18.9	24.3	24.0	24.1
Reported PAT	15,934	6,048	5,123	12,172	14,245	22,542	20,271
Adjusted PAT	15,934	12,452	9,890	12,172	14,245	16,576	20,271
Change (%)	11.1	-21.9	-20.6	23.1	17.0	16.4	22.3

Standalone - Balance Sheet							(INR m)
Y/E March	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Equity Share Capital	295	295	295	295	295	295	295
Total Reserves	90,967	92,399	97,927	1,06,584	1,09,827	1,23,522	1,33,767
Net Worth	91,262	92,694	98,222	1,06,879	1,10,122	1,23,817	1,34,062
Total Loans	0	0	0	0	0	0	0
Capital Employed	91,262	92,694	98,222	1,06,879	1,10,122	1,23,817	1,34,062
Gross Block	28,991	34,629	36,339	38,738	42,482	49,137	53,137
Less: Accum. Deprn.	17,338	21,271	23,983	26,623	30,479	34,785	39,592
Net Fixed Assets	11,653	13,358	12,356	12,115	12,003	14,352	13,545
Capital WIP	6,546	4,932	4,928	6,054	3,655	1,000	2,000
Total Investments	40,538	40,415	51,571	55,275	55,536	55,536	55,536
Curr. Assets, Loans&Adv.	63,764	69,928	73,821	76,499	87,619	1,06,968	1,22,596
Inventory	14,443	11,159	12,985	17,293	19,029	21,085	23,119
Account Receivables	15,675	14,131	13,894	15,267	19,029	22,022	24,146
Cash and Bank Balance	12,527	22,560	24,505	17,054	20,569	29,656	37,828
Loans and Advances	21,118	22,079	22,438	26,885	28,992	34,204	37,504
Curr. Liability & Prov.	35,834	40,506	49,514	47,225	52,472	57,820	63,396
Account Payables	15,885	16,050	22,230	22,404	27,253	30,456	33,394
Other Current Liabilities	9,200	8,277	14,171	11,174	12,728	13,682	15,001
Provisions	10,749	16,180	13,113	13,647	12,491	13,682	15,001
Net Current Assets	27,929	29,422	24,308	29,274	35,147	49,148	59,200
Deferred Tax assets	4,596	4,567	5,059	4,161	3,781	3,781	3,781
Appl. of Funds	91,262	92,694	98,222	1,06,879	1,10,122	1,23,817	1,34,062

E: MOFSL Estimates

Financials and valuations

Ratios							
Y/E March	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Basic (INR)							
EPS	540	422	335	413	483	562	687
Cash EPS	677	552	451	523	614	708	850
BV/Share	3,095	3,143	3,331	3,624	3,734	4,199	4,546
DPS	105	105	115	210	480	300	340
Payout (%)	23.4	61.6	66.2	50.9	99.4	39.2	49.5
Valuation (x)							
P/E	36.2	46.3	58.3	47.4	40.5	34.8	28.5
Cash P/E	28.9	35.4	43.4	37.4	31.9	27.6	23.0
P/BV	6.3	6.2	5.9	5.4	5.2	4.7	4.3
EV/Sales	4.7	5.6	5.7	4.8	3.7	3.2	2.9
EV/EBITDA	26.2	37.4	55.0	38.3	30.8	26.6	20.7
Dividend Yield (%)	0.5	0.5	0.6	1.1	2.5	1.5	1.7
FCF per share	2.6	309.2	217.4	-64.8	194.7	154.2	429.9
Return Ratios (%)							
RoIC	22.7	19.1	12.5	17.2	20.0	21.2	25.1
RoE	16.7	13.5	10.4	11.9	13.1	14.2	15.7
RoCE (pre-tax)	24.6	17.9	12.2	14.9	17.5	19.2	21.1
Working Capital Ratios							
Fixed Asset Turnover (x)	4.2	2.8	2.7	3.0	3.5	3.5	3.5
Asset Turnover (x)	1.3	1.1	1.0	1.1	1.4	1.5	1.5
Inventory (Days)	44	41	49	54	47	45	45
Debtor (Days)	47	52	52	47	47	47	47
Creditor (Days)	48	60	83	69	67	65	65
Working Cap. Turnover (Days)	47	25	-1	38	36	42	42
Standalone - Cash Flow Statement							(INR m)
Y/E March	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
OP/(Loss) before Tax	23,410	10,069	5,671	15,001	18,824	21,810	26,692
Depreciation	4,045	4,445	3,414	3,243	3,856	4,306	4,807
Interest & Finance Charges	-2,769	-2,948	-2,377	-2,096	-2,670	-5,538	-5,520
Direct Taxes Paid	-7,822	-4,612	-2,695	-2,664	-4,031	-7,119	-6,421
(Inc)/Dec in WC	-6,888	10,206	6,320	-9,404	-2,091	-4,914	-1,880
Others	-4,044	-3,799	-1,984	-1,374	-1,752	0	0
CF from Operating incl EO	5,931	13,361	8,349	2,706	12,136	8,546	17,678
(Inc)/Dec in FA	-5,854	-4,243	-1,938	-4,617	-6,395	-4,000	-5,000
Free Cash Flow	78	9,118	6,411	-1,911	5,741	4,546	12,678
(Pur)/Sale of Investments	15,821	782	-5,087	-1,837	8,079	0	0
Others	7,691	-5,267	2,395	6,122	934	6,138	6,020
CF from Investments	17,659	-8,729	-4,630	-332	2,618	2,138	1,020
Issue of Shares	-21,569	0	0	0	0	0	0
	· · · · · · · · · · · · · · · · · · ·	0	0	0	0	0	0
Inc/(Dec) in Debt	0	0	•		0		
	0 -60	0	-16	-150	-62	-600	-500
Inc/(Dec) in Debt							
Inc/(Dec) in Debt Interest Paid	-60	0	-16	-150	-62	-600	-500
Inc/(Dec) in Debt Interest Paid Dividend Paid	-60 -3,679	0 -3,731	-16 -3,095	-150 -3,394	-62 -12,092	-600 -8,847	-500 -10,027
Inc/(Dec) in Debt Interest Paid Dividend Paid Others CF from Fin. Activity	-60 -3,679 0 -25,308	0 -3,731 -259	-16 -3,095 -271	-150 -3,394 -287 - 3,831	-62 -12,092 -240 -12,394	-600 -8,847 0 -9,447	-500 -10,027 0 -10,527
Inc/(Dec) in Debt Interest Paid Dividend Paid Others CF from Fin. Activity Inc/Dec of Cash	-60 -3,679 0 -25,308 -1,717	0 -3,731 -259 -3,990 642	-16 -3,095 -271 -3,382 337	-150 -3,394 -287 -3,831 -1,457	-62 -12,092 -240 -12,394 2,360	-600 -8,847 0 -9,447 1,237	-500 -10,027 0 -10,527 8,172
Inc/(Dec) in Debt Interest Paid Dividend Paid Others CF from Fin. Activity	-60 -3,679 0 -25,308	0 -3,731 -259 - 3,990	-16 -3,095 -271 - 3,382	-150 -3,394 -287 - 3,831	-62 -12,092 -240 -12,394	-600 -8,847 0 -9,447	-500 -10,027 0 -10,527

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

NOTES

Explanation of Investment Rating						
Investment Rating	Expected return (over 12-month)					
BUY	>=15%					
SELL	<-10%					
NEUTRAL	< - 10 % to 15%					
UNDER REVIEW	Rating may undergo a change					
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation					

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall be within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at http://onlinereports.motilaloswal.com/Dormant/documents/List%20of%2 MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy

or sell the securities or derivatives thereof of companies mentioned herein. (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) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx

A graph of daily closing prices of securities is available at www.nseindia.com, <a href="www.nseindia.co research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg. No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the"1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement. The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co. Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore. As per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public

Specific Disclosures

- MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company
- MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report

appearances and trading securities held by a research analyst account.

- Research Analyst has not served as director/officer/employee in the subject company MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- MOFSL has not received any compensation or other benefits from third party in connection with the research report
- MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

9 9 November 2023

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 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) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, it does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. 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 MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eliqible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays. This report is meant for the clients of Motilal Oswal only.

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

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai-400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-40548085. Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN .: 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.