

May 18, 2023

RESULT REPORT Q4FY23 | Sector: Automobile

Endurance Technologies

Healthy orderbook both in S/A and Europe

Valuation and View – Healthy order wins to help drive outperformance

Endurance (ENDU) 4QFY23 consol results were better-than-expected as margins in Europe business at 17.8% (vs 12.6% YoY) outpaced our estimates while margins in S/A at 11.9% (+80bp QoQ, est ~12%) were in-line. Europe margins recovery was led by falling energy prices, and energy cost related compensation from government (Italian government) and customers. New order wins of Rs9.35b/EUR84m in FY23 (v/s Rs8.8b/EUR67.4m in 9MFY23) is healthy considering weak volumes in domestic 2Ws and Europe. ENDU's EV specific orders is seeing a ramp-up which now stands at ~Rs3.8b in S/A (42% of S/A orderbook vs 12% in FY22) with cumulative order of ~Rs6b (including BJAUT and do not include Rs1.3b orders at Maxwell) till date as well as EUR41m orders in EVs in Europe.

We believe ENDU should continue to outperform industry growth driven by i) new order wins and ramp up in ABS supplies to ~1.2m units/annum by 2HFY25, ii) backward integration accelerated with setting up of paper plate manufacturing plant by 1QFY24 as its are mainly imported from China/US and in-house manufacturing of ABS valves. Operating costs headwinds are likely to ease in Europe, especially energy cost (~20% decline seen QoQ so-far in 1QFY24E) in addition to decline in RM inflation should drive margins expansion of ~400bp over FY23-25E to 16%. We raise FY24/25 consol EPS by ~1% to factor in decline in energy cost. Maintain BUY with revised TP of Rs1,665 (v/s Rs1,648) as we value co at 25x to Mar'25 consol EPS (unchanged). ENDU trades at 27.1x/20.9x FY24/25 EPS (v/s 32x LPA) is comforting given expected revenue/EBITDA/PAT CAGR of 13%/29%/38% over FY23-25E.

Result highlights – S/A in-line; better subs margins drive consol beat

- Consol revenues grew 7.7% YoY (+6.6% QoQ) at Rs22.3b (est Rs21.7b, cons Rs22.5b). Gross margins contracted 120bp YoY (-60bp QoQ) at 59.3% (est 60.2%).
- Consol EBITDA grew ~13% YoY (+19% QoQ) at Rs2.8b (est Rs2.6b, cons Rs2.8b) leading to margins expanded 60bp YoY (+130bp QoQ) at 12.8% (est 12%, cons 12.3%). S/A margins contracted ~60bp YoY (+70bp QoQ) at 11.9% (5 quarter high) while Europe margins (derived) expanded 390bp YoY (+300bp QoQ) at 15.4%. This was led by falling energy prices, and compensation from governments
- Bette op performance was offset by higher depreciation at Rs1.2b (est Rs1.04b), restricted Adj.PAT growth at Rs~3% YoY (+26% QoQ) at Rs1.36b (est 1.2b, cons Rs1.3b).
- FY23 performance** – Consol revenue/EBITDA/Adj.PAT grew 16.6%/7.4%/0.4%.

Exhibit 1: Actual vs estimates

Rs mn	Actual	Estimate		% variation		Remarks
		Yes Sec	Consensus	Yes Sec	Consensus	
Sales	22,343	21,775	22,452	2.6	-0.5	Europe surprised positively while S/A was in-line. Nos were in-line to street.
EBITDA	2,854	2,599	2,751	9.8	3.7	
EBITDA margins %	12.8	11.9	12.3	80bp	50bp	
Adjusted PAT	1,365	1,162	1,306	17.4	4.5	

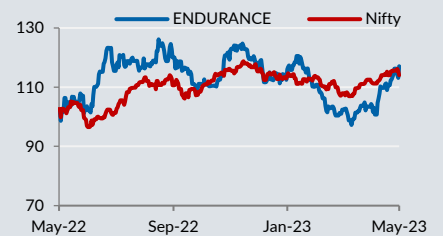
Source: Company, YES Sec

Reco	: BUY
CMP	: Rs 1,390
Target Price	: Rs 1,665
Potential Return	: +20%

Stock data (as on May 18, 2023)

Nifty	18,130
52 Week h/l (Rs)	1565 / 1175
Market cap (Rs/USD mn)	201675 / 2443
Outstanding Shares (mn)	141
6m Avg t/o (Rs mn):	84
Div yield (%)	0.5
Bloomberg code:	ENDU IN
NSE code:	ENDURANCE

Stock performance



	1M	3M	1Y
Absolute return	12.2%	5.6%	15.1%

Shareholding pattern (As of Mar'23)

Promoter	75.0%
FII+DII	23.2%
Others	1.8%

Δ in stance

(1-Yr)	New	Old
Rating	BUY	BUY
Target Price	1,665	1,648

Δ in earnings estimates

	FY24e	FY25e
EPS (New)	51.3	66.3
EPS (Old)	51.2	65.9
% change	0.3%	0.6%

Financial Summary- Consolidated

Y/E Mar (Rs b)	2023	2024E	2025E
Sales	88.0	99.7	111.6
EBITDA	10.4	14.3	17.4
Adj. PAT	4.9	7.2	9.3
EPS (Rs)	34.7	51.3	66.3
EPS Growth (%)	0.4	48.2	29.2
BV/Share (INR)	313.7	352.2	401.9
RoE (%)	11.7	15.4	17.6
RoCE (%)	13.3	18.3	21.5
Payout (%)	20.5	25.0	25.0
P/E (x)	40.1	27.1	20.9
EV/EBITDA (x)	19.1	13.8	11.1
EV/Sales (x)	2.2	2.0	1.7

DEEP SHAH

Lead Analyst

deep.shah@ysil.in

+91 22 68850521



Exhibit 2: Quarterly snapshot

Y/e Mar (Rs mn)	Q4FY23	Q4FY22	YoY chg	Q3FY23	FY23	FY22	YoY chg
Net Revenues	22,343	20,745	7.7	20,952	87,415	74,858	16.8
Raw Materials	13,257	12,554	5.6	12,557	53,295	44,201	20.6
% of Net Sales	59.3%	60.5%		59.9%	61.0%	59.0%	
Personnel	2,091	1,684	24.2	1,932	7,636	6,944	10.0
% of Net Sales	9.4%	8.1%		9.2%	8.7%	9.3%	
Manufacturing & Other Exp	4,141	3,979	4.1	4,068	16,747	14,700	13.9
% of Net Sales	18.5%	19.2%		19.4%	19.2%	19.6%	
Total Expenditure	19,489	18,217	7.0	18,557	77,678	65,845	18.0
EBITDA	2,854	2,528	12.9	2,395	9,737	9,013	8.0
EBITDA Margin (%)	12.8%	12.2%		11.4%	11.1%	12.0%	
Depreciation	1,216	981	23.9	1,016	4,216	3,817	10.4
EBIT	1,638	1,547	5.9	1,379	5,521	5,195	6.3
Interest Expenses	80	17	369.5	46	206	64	223.8
Non-operating income	208	127	64.2	115	454	410	10.7
Extraordinary Expenses	0	43	(1.0)	0	483	32	
PBT	1,767	1,700	3.9	1,448	6,253	5,574	12.2
Tax-Total	402	338	18.9	366	1,497	1,254	19.3
Tax Rate (%) - Total	22.8%	19.9%		25.3%	1.7%	1.7%	
Reported PAT	1,365	1,362	0.2	1,082	4,756	4,320	10.1
Minority Interest	0	(43)	(1.0)	0	(483)	(32)	
Profit after MI	1,365	1,318	3.5	1,082	4,273	4,288	(0.3)
Adj. PAT	1,365	1,327	2.8	1,082	4,389	4,270	2.8
PAT Margin	6.1%	6.4%		5.2%	5.0%	5.7%	

Source- Company, Yes Sec

KEY CON-CALL HIGHLIGHTS

India (Standalone business)

- **Order wins in FY23** - Rs9.350b (ex BJUAT, of which Rs7.8b of new business and Rs1.55b of replacement) in S/A (v/s Rs8.78b/Rs7.45b in 9MFY23/FY22), Maxwell - Rs1.3b (v/s Rs700m in 9MFY23). RsRFQ's under discussion is Rs25.667b as of 4QFY23 (v/s Rs19.86b as of 3Q).
- **EV orders** - Rs3.8bin S/A (42% of S/A orderbook vs 12% in FY22) with **cumulative order of Rs6b** (including BJAUT and do not include Rs1,290m orders at Maxwell) till date (Rs3,765m new orders from Ather, Hero Electric, Ampere in FY23), Europe - EUR41m in addition to EUR27m for hybrids.
 - **S/A EV orders** from EV customers include Bajaj Auto, Ampere Mahindra Electric, Bounce, Hero Electric, Ather, Okinawa.
 - **Won 15 EV programs from 11 customers in FY23**, as against 35 ICE programs.
 - **EV Order details** - Suspension orders from Ather, Ampere and Hero Electric, brakes orders from Ather, Okinawa, Ampere and HeroMotocorp.
- **FY23 order bookings includes**
 - **~Rs1.39b order from Suzuki scooters for Front Forks** will SOP in FY25 at Waluj. Installing new lines for front forks 1m numbers overall.
 - ~Rs402m from TVS for Suspensions (SOP in Nov'23 from Karnataka plant), ~Rs489m from Hero Electric suspension (Sop Jun'23 from Halol), Rs273m from Okinawa for Brakes (Sop from Oct'23 at Waluj), Rs155m from Ampere (Sop Aug'23 from Karnataka plant), Rs290m from Greaves for brakes (Sop Aug'23 from Waluj), Rs150m from Ather suspension (Sop Jun'23 from Karnataka), Rs1,591m from Ather for brakes where supplies have started and will reach peak in FY25E.
 - Brakes and Alloy Wheels and Continued focus on 4W machined castings where orders are in excess of Rs3.7b in 4 years.
 - Apart from Rs9.35b orders for FY23, have received additional Rs1.2b order from HMCL for front fork absorbers at Halol plant (supplies have started in Apr'23).
 - **Rs400m per annum orders to supply 35 dia air suspension forks to KTM Austria (export) where supply will commence by end of FY24.**
 - **Overall Rs28.87b order received in last 4 years** of which Rs21.06b worth are of new orders (Rs4.41b in FY23, Rs6.92 in FY24E, Rs9.73 in FY25/26E) and Rs7.82b worth of replacement orders.
- **MH state mega incentive scheme incentive** of Rs3.71m received in 4QFY23 and Rs589.2m in FY23.
- **Capacity expansion/new products introduced in FY23** - 1) Aluminium Alloy Wheels expansion to 4.5m wheels per annum, 2) capacity expansion to 6.8m brake systems per annum and 8.1m brake discs per annum, 3) Driveshaft and 4) Aluminium Forgings.
 - **Looking to add capacity for EV castings ahead.**
- **Patents** - 10 new patents approvals received in FY23 taking the total to 32 and 6 new design registrations approvals received in FY23 taking the total to 24.
- **Castings** - ~75% of supplies are semi/fully finished...while most OEMs have outsourced there are few OEM who still do in house. All the new business wins are for machined castings...proportion of fully machine casting would be ~40% currently in 2Ws while 4W is fully machined.

Endurance Technologies (ENDU)

- **EV 2Ws** - Increasing aluminum castings capacity to 240k/annum for battery pack and motor houses with total business won at Rs1b/annum with SOP in FY24 and peak in FY25.
- **CVT** – evaluating if co can pursue time and resource for the project as the program with HMCL is moving slower than expected.
- **Aluminum forging (in collaboration with FGM Italy) for inverted front forks** – Increasing capacity to 600k parts/annum from 280k parts/annum at additional business of Rs750m at Waluj with SOP in FY24 and peak in FY25.
 - **Supplying to KTM and Bajaj currently and have won orders for stem assemblies and under bracket alu forging from HMCL** and engaging with new OEMs as well.
- **Structural Aluminum castings** – Adding machines at Pune facility for Swing Arms, sub frames and structural pairings for both EV and ICE (for Bajaj, KTM, Piaggio and TVS) with SOP in FY24 and peak in FY25E.
- **Inverted front forks** – Have added TVS (apart from RE and Bajaj) were SOP will be from 1QFY25 with business value is Rs212m.
- **Disc brake assembly** – new plant have started operations in Waluj. With this the capacity is increased to 6.2m units/annum and brake disc capacity increased to 8.1m units/annum.
- **ABS** – have reached ~400k units of ABS and will be ramped up to 600k by Jul'23 (single and dual) at Waluj and will further expand to 1.2m units by 2HFY25. Will start supplying dual channel ABS by 2QFY24. **Have started manufacturing of ABS Valves in Mar'23 (import substitute)** which will help reduce cost.
- **Alloy wheels** – Led by increased order from Bajaj, Yamaha, TVS and Hero Electric, have added new plant at Chakan (started in Jul'22) to help increase volumes to 4.5m wheels/annum from 2.8m wheels/annum. **Peak supply will be achieved in 2QFYFY24E.**
- **Ather energy** – have started fully machined 5 channel aluminum castings from Vallam plant. **Will supply 200k parts/annum with value of Rs410m (peak revenues in FY24).**
- **Maxwell financials** – Revenues of Rs180.29m and EBITDA loss of Rs118.59m for FY23. Looking at positive EBITDA in FY24E.
 - Have won Rs1.7b orders for BMS from Hero Electric (SOP Jul'23 and Rs1.495b from Ampere (SOP Sep'23). **RFQs of Rs1.31b for maxwell. Till date since FY22, Rs3286.2m orders won by Mawell which will be fully realized till FY26.**
 - **Supplying 100% to HMCL's Vida.**
 - Exploring advance electronics beyond BMS which will soon be commercialized.
 - **New BMS SMT line will begin from Jul'23** at Waluj with peak revenues of Rs800m/year. Endurance will be investing for the same.
- **Capex** – Rs3.9b in FY23 of which ~82% of total capex was for expansion capex whereas Europe capex was at EUR29.9m.
- **India margins** – Aluminum prices are still going up and hence margins recovery would depend upon decline in RM prices.
- **Aftermarket sales from Indian operations stood** at Rs4,311m in FY23 v/s Rs4,189m in FY22.
 - Expect to increase aftermarket contribution from 6.5% currently to 10% of India sales by FY26. Seeing an improvement in SL, BG and Africa.
 - **Aftermarket** - Currently supply to 31 countries (and want to add another 5 countries in FY24).
 - Exports from S/A business - Revenues declined by 5.6% from Rs2241.19m to Rs2116.23m in FY23. Low export sales was seen in markets such as Africa, SA and neighboring countries facing economic challenges.

Endurance Technologies (ENDU)

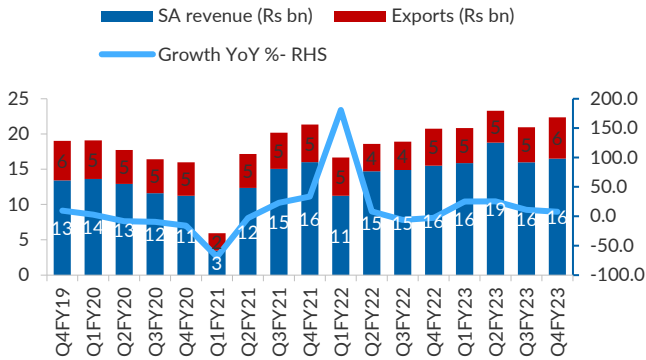
- 4W account for 7.5% of India sales...looking at organic growth as well as technology collaboration to grow in 4W segment ahead.

Europe

- Europe revenues in Euro terms grew 12.7% YoY while adjusted for the impact of higher aluminium prices, it grew 9.8%. Europe EBITDA margins improved to 14.5% in FY23 from 14.1 % in FY22 despite high energy costs, which were partially compensated by customers and government support.
 - EUR PV sales grew 17% in 4QFY23 YoY.
- **New order wins in FY23 - EUR8.87m (EUR67.4m/EUR71m in 9MFY23/FY22) from VW, Daimler and Stellantis.**
 - **EV orders** - Europe - EUR41m in addition to EUR27m for hybrids.
 - **EUR220m order in past 4 years of which EUR170m orders are new orders and EUR50m orders are replacement orders.**
 - Out of Euro 220mn of cumulative orders won in the last 4 years, Euro 71mn (32%) are for EV applications and Euro 112mn (51%) for Hybrid Applications.
- **Share of powertrain in Europe in FY23/FY22** - EV 49%/11%, Hybrid 32%/65%, ICE/common 16%/25%, Non-Auto 3%/0%.
- **Energy prices** in Europe - electricity price declined by 37% YoY to EUR157/mwh in 4QFY23 (+165% vs 4QFY21) whereas Gas prices declined 42% to EUR61/cubic meter (+215% vs 4QFY21).
- **Energy cost as of today is ~25% lower than 4QFY23 hence expect decline in energy cost as well government support for energy cost inflation compensation. In 4QFY23, government support was 100% of increased of energy cost.**
 - Italian government compensation rate was ~45% which has been reduced to 20% now. In Germany the price cap was EUR150/mwh hence hasn't received anything in 4QFY23.
 - Overall compensation was EUR1.2m in 4QFY23.
 - Expect Europe margins to improve in FY24E led by decline in energy cost as well as compensation from customers.
- **Europe margins of 17.8% in 4QFY23** was largely normal and margins ahead will be contingent on volumes.
 - **EUR revenue/EBITDA/PAT 4QFY23/4QFY22** - EUR67.4m (EUR62.6m), EUR12m (EUR7.9m), EUR4.5m (EUR2.7m). EUR FY23 PAT at EUR12.1m.
- Want to double Europe 2W aftermarket revenues from EUR15m in FY23 ahead.

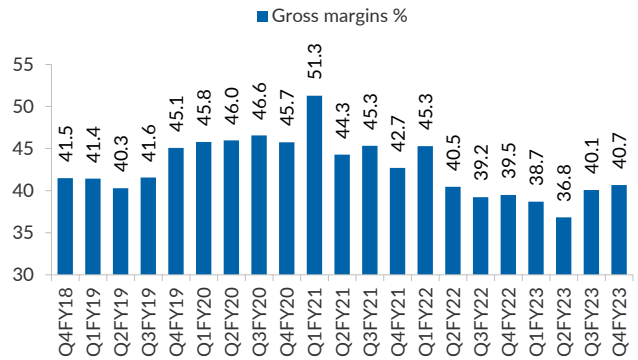
CHARTS

Exhibit 1: SA/Eur revenue were +3.3%/+12.7% QoQ



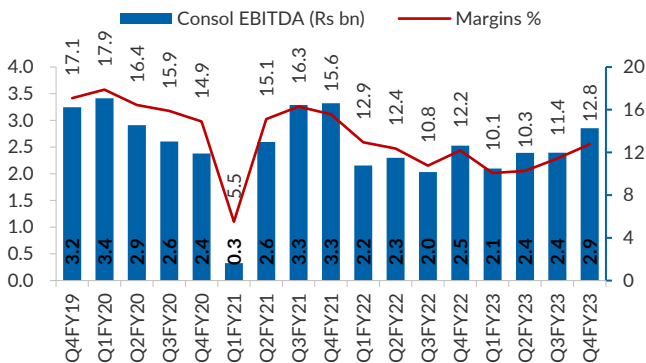
Source: Company, YES Sec

Exhibit 2: Gross margins expanded by 60bps QoQ



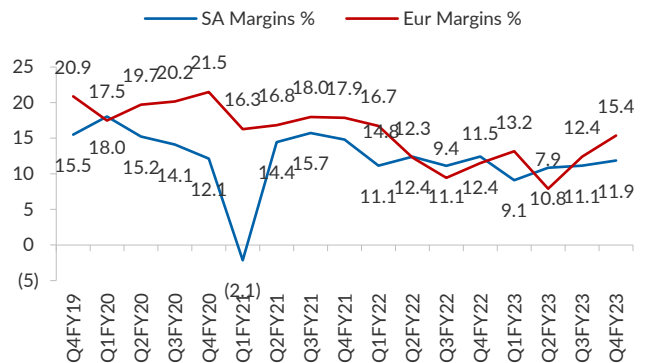
Source: Company, YES Sec

Exhibit 3: Margins expanded ~140bp QoQ at 12.8%



Source: Company, YES Sec

Exhibit 4: Trend in S/A and Europe business margins



Source: SIAM, YES Sec

FINANCIALS

Exhibit 5: Balance Sheet

Y/E March	FY21	FY22	FY23	FY24E	FY25E
Equity Share Capital	1,407	1,407	1,407	1,407	1,407
Preference Capital	-	-	-	-	-
Total Reserves	34,215	37,793	42,715	48,131	55,130
Net Worth	35,621	39,200	44,121	49,538	56,537
Minority Interest	0	0	0	0	0
Total Loans	6,411	4,296	5,148	4,148	3,148
Deferred Tax Liabilities	5	6	5	5	5
Capital Employed	42,038	43,503	49,274	53,691	59,690
Gross Block	44,054	48,000	54,354	60,354	66,354
Less: Accum. Deprn.	19,768	22,610	26,826	31,655	36,803
Net Fixed Assets	24,286	25,390	27,528	28,700	29,551
Goodwill on Consolidation	1,740	1,757	3,900	3,900	3,900
Capital WIP	962	1,193	1,709	1,709	1,709
Total Investments	4,443	4,868	6,718	7,390	8,129
Curr. Assets, Loans&Adv.	26,045	25,368	28,169	33,221	40,171
Inventory	6,118	7,011	8,206	10,924	12,232
Account Receivables	10,410	9,704	11,620	13,156	14,732
Cash and Bank Balance	5,133	4,026	2,877	2,953	6,279
Loans and Advances	4,383	4,627	5,465	6,188	6,929
Curr. Liability & Prov.	15,438	15,074	18,750	21,229	23,771
Account Payables	12,783	12,413	14,257	16,142	18,075
Other Current Liabilities	1,622	1,786	3,520	3,986	4,463
Provisions	1,032	874	973	1,101	1,233
Net Current Assets	10,607	10,295	9,418	11,992	16,400
Appl. of Funds	42,037	43,502	49,274	53,691	59,690

Source: Company, YES Sec

Exhibit 6: Income statement

Y/E March	FY21	FY22	FY23	FY24E	FY25E
Net Sales	65,470	75,491	88,040	99,678	111,614
Change (%)	(5.4)	15.3	16.6	13.2	12.0
Total Expenditure	55,068	65,845	77,678	85,421	94,258
% of Sales	84.1	87.2	88.2	85.7	84.4
EBITDA	10,402	9,646	10,363	14,256	17,356
Margin (%)	15.9	12.8	11.8	14.3	15.6
Depreciation	3,991	3,817	4,216	4,829	5,148
EBIT	6,411	5,829	6,147	9,428	12,208
Int. and Finance Charges	138	64	206	168	135
Other Income	307	410	454	420	430
PBT bef. EO Exp.	6,580	6,176	6,395	9,679	12,503
EO Items	(112)	(315)	(103)	-	-
PBT after EO Exp.	6,468	5,861	6,293	9,679	12,503
Total Tax	1,272	1,254	1,497	2,457	3,171
Tax Rate (%)	20	21	24	25	25
Minority Interest	(1)	-	-	-	-
Reported PAT	5,197	4,607	4,796	7,222	9,332
Adjusted PAT	5,287	4,854	4,874	7,222	9,332
Change (%)	(6.5)	(8.2)	0.4	48.2	29.2
Margin (%)	8.1	6.4	5.5	7.2	8.4

Source: Company, YES Sec

Endurance Technologies (ENDU)

Exhibit 7: Cash Flow Statement

Y/E March	FY21	FY22	FY23	FY24E	FY25E
OP/(Loss) before Tax	6,468	5,861	6,293	9,679	12,503
Depreciation	3,991	3,817	4,216	4,829	5,148
Interest & Finance Charges	132	57	196	(252)	(295)
Direct Taxes Paid	(1,739)	(1,600)	(1,849)	(2,457)	(3,171)
(Inc)/Dec in WC	(2,695)	(398)	(415)	(2,498)	(1,082)
CF from Operations	6,157	7,737	8,441	9,301	13,103
Others	57	(322)	179	-	-
CF from Operating incl EO	6,215	7,416	8,620	9,301	13,103
(Inc)/Dec in FA	(3,114)	(5,195)	(6,216)	(6,000)	(6,000)
Free Cash Flow	3,101	2,220	2,404	3,301	7,103
(Pur)/Sale of Investments	0	(0)	(0)	(672)	(739)
CF from Investments	(5,906)	(5,513)	(9,147)	(6,252)	(6,309)
Issue of Shares	-	-	-	-	-
Inc/(Dec) in Debt	(921)	(1,828)	282	(1,000)	(1,000)
Interest Paid	(134)	(67)	(40)	(168)	(135)
Dividend Paid	(0)	(844)	(879)	(1,806)	(2,333)
CF from Fin. Activity	(1,430)	(3,020)	(719)	(2,974)	(3,468)
Inc/Dec of Cash	(1,122)	(1,117)	(1,246)	76	3,326
Opening Balance	6,255	5,144	4,123	2,877	2,953
Closing Balance	5,133	4,026	2,877	2,953	6,279

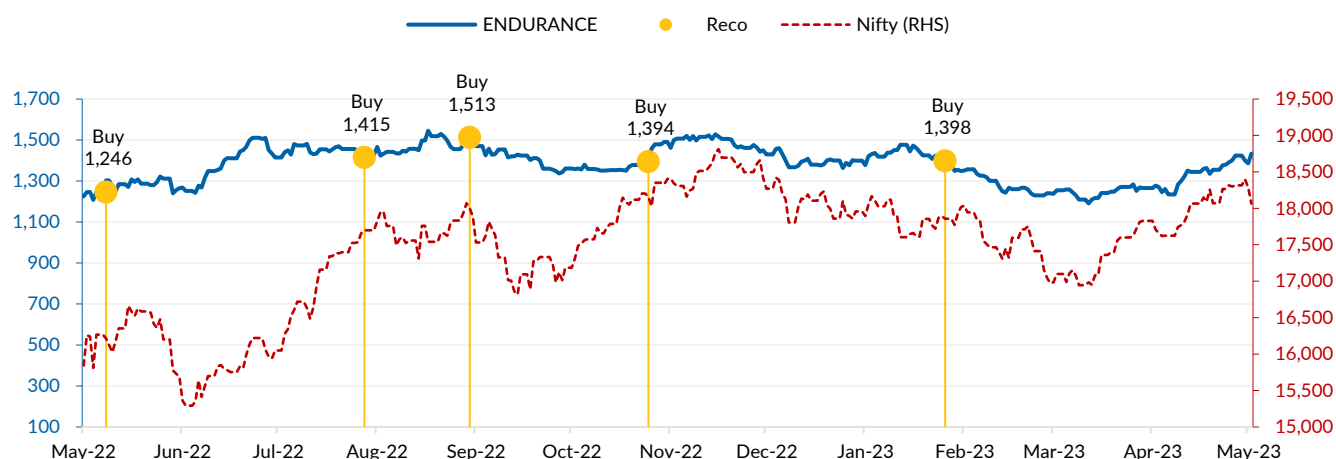
Source- Company, YES Sec

Exhibit 8: Growth and Ratio matrix

Y/E March	FY21	FY22	FY23	FY24E	FY25E
Basic (INR)					
EPS	37.6	34.5	34.7	51.3	66.3
Cash EPS	66.0	61.6	64.6	85.7	102.9
BV/Share	253.2	278.7	313.7	352.2	401.9
DPS	6.0	6.3	7.0	12.8	16.6
Payout (%)	16.2	19.1	20.5	25.0	25.0
Valuation (x)					
P/E	37.0	40.3	40.1	27.1	20.9
Cash P/E	21.1	22.5	21.5	16.2	13.5
P/BV	5.5	5.0	4.4	3.9	3.5
EV/Sales	3.0	2.6	2.2	2.0	1.7
EV/EBITDA	18.9	20.3	19.1	13.8	11.1
FCF per share	22.0	15.8	17.1	23.5	50.5
Return Ratios (%)					
RoE	16.1	13.0	11.7	15.4	17.6
RoCE	16.5	13.6	13.3	18.3	21.5
RoIC	17.8	14.1	13.1	17.7	21.4
Working Capital Ratios					
Asset Turnover (x)	1.5	1.6	1.6	1.7	1.7
Inventory (Days)	34.1	33.9	34.0	40.0	40.0
Debtor (Days)	58.0	46.9	48.2	48.2	48.2
Creditor (Days)	71.3	60.0	59.1	59.1	59.1
Leverage Ratio (x)					
Net Debt/Equity	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)

Source- Company, YES Sec

Recommendation Tracker



Source - YES Sec

DISCLAIMER

Investments in securities market are subject to market risks, read all the related documents carefully before investing.

The information and opinions in this report have been prepared by YSL and are subject to change without any notice. The report and information contained herein are strictly confidential and meant solely for the intended recipient and may not be altered in any way, transmitted to, copied or redistributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of YSL.

The information and opinions contained in the research report have been compiled or arrived at from sources believed to be reliable and have not been independently verified and no guarantee, representation of warranty, express or implied, is made as to their accuracy, completeness, authenticity or validity. No information or opinions expressed constitute an offer, or an invitation to make an offer, to buy or sell any securities or any derivative instruments related to such securities. Investments in securities are subject to market risk. The value and return on investment may vary because of changes in interest rates, foreign exchange rates or any other reason. Investors should note that each security's price or value may rise or fall and, accordingly, investors may even receive amounts which are less than originally invested. The investor is advised to take into consideration all risk factors including their own financial condition, suitability to risk return profile and the like, and take independent professional and/or tax advice before investing. Opinions expressed are our current opinions as of the date appearing on this report. Investor should understand that statements regarding future prospects may not materialize and are of general nature which may not be specifically suitable to any particular investor. Past performance may not necessarily be an indicator of future performance. Actual results may differ materially from those set forth in projections.

Technical Analysis reports focus on studying the price movement and trading turnover charts of securities or its derivatives, as opposed to focussing on a company's fundamentals and opinions, as such, may not match with reports published on a company's fundamentals.

YSL, its research analysts, directors, officers, employees and associates accept no liabilities for any loss or damage of any kind arising out of the use of this report. 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 YSL and associates 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 certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction.

YES Securities (India) Limited distributes research and engages in other approved or allowable activities with respect to U.S. Institutional Investors through SEC 15a-6 rules and regulations under an exclusive chaperone arrangement with Brasil Plural Securities LLC. The views and sentiments expressed in this research report and any findings thereof accurately reflect YES Securities (India) Limited analyst's truthful views about the subject securities and or issuers discussed herein. YES Securities (India) Limited is not registered as a broker-dealer under the Securities Exchange Act of 1934, as amended (the "Exchange Act") and is not a member of the Securities Investor Protection Corporation ("SIPC"). Brasil Plural Securities LLC is registered as a broker-dealer under the Exchange Act and is a member of SIPC. For questions or additional information, please contact Gil Aikins (gil.aikins@brasilplural.com) or call +1 212 388 5600.

This Research Report is the product of YES Securities (India) Limited. YES Securities (India) Limited is the employer of the research analyst(s) who has prepared the research report. YES Securities (India) Limited is the employer of the YES Securities (India) Limited Representative who is responsible for the report, are responsible for the content of the YES Securities (India) Limited Research Report; any material conflicts of interest of YES Securities (India) Limited in relation to the issuer(s) or securities discussed in the YES Securities (India) Limited Research Report. This YES Securities (India) Limited Research Report is distributed in the United States through Brasil Plural Securities LLC (BPS). The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and is/ 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 YES Securities (India) Limited 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 or entity. Transactions in securities discussed in this research report should be effected through Brasil Plural Securities LLC (BPS) or another U.S. registered broker dealer/Entity as informed by YES Securities (India) Limited from time to time.

YES Securities (India) Limited

Registered Address: 2nd Floor, North Side, YES BANK House,
Off Western Express Highway, Santacruz East,
Mumbai - 400 055, Maharashtra, India.

Correspondence Address: 4th Floor, AFL House,
Lok Bharti Complex, Marol Maroshi Road, Andheri East,
Mumbai - 400059, Maharashtra, India.

☎ +91 22 68850521 | ✉ research@ysil.in
Website: www.yesinvest.in

Registration Nos.: CIN: U74992MH2013PLC240971 | SEBI Single
Registration No.: NSE, BSE, MCX & NCDEX : INZ000185632 | Member
Code: BSE - 6538, NSE - 14914, MCX - 56355 & NCDEX - 1289 | CDSL &
NSDL: IN-DP-653-2021 | MERCHANT BANKER: INM000012227 |
RESEARCH ANALYST: INH000002376 | INVESTMENT ADVISER:
INA000007331 | Sponsor and Investment Manager to YSL Alternates
Alpha Plus Fund (CAT III AIF) SEBI Registration No.: IN/AIF3/20-21/0818 |
AMFI ARN Code - 94338.

Details of Compliance Officer: Name: Aditya Goenka,
Email id: compliance@ysil.in, **Contact No:** 022- 65078127 (Extn: 718127)

DISCLOSURE OF INTEREST

Name of the Research Analyst : Deep Shah

The analyst hereby certifies that opinion expressed in this research report accurately reflect his or her personal opinion about the subject securities and no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendation and opinion expressed in this research report.

Sr. No.	Particulars	Yes/No
1	Research Analyst or his/her relative's or YSL's financial interest in the subject company(ies)	No
2	Research Analyst or his/her relative or YSL's actual/beneficial ownership of 1% or more securities of the subject company(ies) at the end of the month immediately preceding the date of publication of the Research Report	No
3	Research Analyst or his/her relative or YSL has any other material conflict of interest at the time of publication of the Research Report	No
4	Research Analyst has served as an officer, director or employee of the subject company(ies)	No
5	YSL has received any compensation from the subject company in the past twelve months	No
6	YSL has received any compensation for investment banking or merchant banking or brokerage services from the subject company in the past twelve months	No
7	YSL has 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	No
8	YSL has received any compensation or other benefits from the subject company or third party in connection with the research report	No
9	YSL has managed or co-managed public offering of securities for the subject company in the past twelve months	No
10	Research Analyst or YSL has been engaged in market making activity for the subject company(ies)	No

Since YSL and its associates are engaged in various businesses in the financial services industry, they may have financial interest or may have received compensation for investment banking or merchant banking or brokerage services or for any other product or services of whatsoever nature from the subject company(ies) in the past twelve months or associates of YSL may have managed or co-managed public offering of securities in the past twelve months of the subject company(ies) whose securities are discussed herein.

Associates of YSL may have actual/beneficial ownership of 1% or more and/or other material conflict of interest in the securities discussed herein.

RECOMMENDATION PARAMETERS FOR FUNDAMENTAL REPORTS

Analysts assign ratings to the stocks according to the expected upside/downside relative to the current market price and the estimated target price. Depending on the expected returns, the recommendations are categorized as mentioned below. The performance horizon is 12 to 18 months unless specified and the target price is defined as the analysts' valuation for a stock. No benchmark is applicable to the ratings mentioned in this report.

BUY: Upside greater than 20% over 12 months

ADD: Upside between 10% to 20% over 12 months

NEUTRAL: Upside between 0% to 10% over 12 months

REDUCE: Downside between 0% to -10% over 12 months

SELL: Downside greater than -10% over 12 months

NOT RATED / UNDER REVIEW

ABOUT YES SECURITIES (INDIA) LIMITED

YES Securities (India) Limited ("YSL") is a wholly owned subsidiary of YES BANK LIMITED. YSL is a Securities and Exchange Board of India (SEBI) registered Stock broker holding membership of National Stock Exchange (NSE), Bombay Stock Exchange (BSE), Multi Commodity Exchange (MCX) & National Commodity & Derivatives Exchange (NCDEX). YSL is also a SEBI-registered Category I Merchant Banker, Investment Adviser and Research Analyst. YSL is also a Sponsor and Investment Manager of Alternate Investment Fund - Category III (YSL Alternates) and AMFI registered Mutual Fund Distributor. The Company is also a registered Depository Participant with CDSL and NSDL. YSL offers, inter alia, trading/investment in equity and other financial products along with various value added services. We hereby declare that there are no disciplinary actions taken against YSL by SEBI/Stock Exchanges.