March 13, 2024

Company Update | Sector: Energy

Mangalore Refinery & Petrochemicals Ltd

En route continuous growth and innovation

Reco	:	**BUY**
CMP	:	Rs 189
Target Price	:	Rs 257
Potential Return	:	+36%

MRPL's Mangalore refinery: Plant visit highlights

Established in 1988, MRPL has transformed over the years, from a modest joint venture to a majority-owned subsidiary of ONGC (earlier Birla Group). It is India's largest single-location PSU refinery, a credible play on refining and petchem in South India of 15mtpa capacity, versatile design, complex secondary processing units, and high flexibility to process crudes of various APIs. It produces the whole range of petroleum products such as Naphtha, LPG, motor spirits, High-speed diesel, Kerosene, Aviation Turbine Fuel, Sulphur, Xylene, Bitumen along with Pet coke and Polypropylene.

Operational Efficiency & Products: MRPL prioritizes efficient inventory management, maintaining a 35-day crude oil stockpile while manufacturing products within a 15-day timeframe. However, a 21-day credit cycle exists for transactions with Oil Marketing Companies (OMCs).

Yields and Complexity: MRPL exhibits a high distillate yield of 78-80% (no scope of increase in distillate yield in current state of refinery) reflective of its effectiveness in producing valuable light and middle distillates like gasoline and diesel. Key product production share is as follows: Diesel: 42%; MS: 15%; ATF 11% and LPG 7%. However, the refinery also suffers a 11% fuel and loss. Its Nelson Complexity Index of 10.6 reflects a complex refining setup, capable of processing a wide range of petroleum products.

MRPL commands a diverse product portfolio, catering to various sectors:

- **Motor Spirit (MS), Diesel and LPG:** MRPL sells these transportation fuels to OMCs, forming 95% of total sales. HPCL's percentage of sales is ~17% and it consumes ~4mmt while other two OMCs take ~1.6-1.7mmt each. MRPL has contracts with OMCs for offtake of these products which are typically established quarterly.
- **Aviation Turbine Fuel (ATF):** Through its joint venture SMA (Shell MRPL Aviation Fuels and Services Limited), holding 50% each, it supplies ATF to domestic (Chennai and Karnataka) and international airlines, keeping the fliers well-fueled. FY23 topline was Rs16.3bn while PAT was Rs 752mn; it also declared a dividend of Rs 217mn.
- **Naphtha, Hydrogen & Xylene:** This unit produces 0.7mmtpa of naphtha, with a portion used internally for hydrogen production. The remaining naphtha is sold entirety to OMPL for its petchem production.
- **Petcoke:** There is 1mmt of petcoke production in an annual, which is of high calorific value and strong demand from the cement sector, a continuous value-add to MRPL earnings.

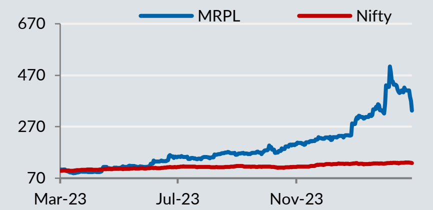
Crude Oil Procurement: MRPL sources crude oil from a strategically diverse mix: indigenous from ONGC's Mumbai High 15%; Russia ~30-40%; Iraq ~15%, and Saudi Arabia ~25% under a term contract and rest from others/spot. The Russian crude discounts were lower as the system for booking of crude price changed from delivery to the port to Russian port exit. It takes ~30days for crude to reach Indian port from Russian port.

View & Outlook: High GRM sensitivity: a USD1/bbl change in GRM changes EBITDA by Rs 9.8bn. BV/share for FY25e/26e: Rs 89/102; debt: equity at 0.6/0.4x FY25e/26e vs 1.7x in FY23. At CMP, stock trades at 7.3x/8.1x FY25e/26e EV/EBITDA & 2.1x/1.9x P/BV. We upgrade to a BUY rating (from ADD) at an unchanged TP of Rs257 following a recent stock price correction.

Stock data (as on March 13, 2024)

Nifty	21,998
52 Week h/l (Rs)	289 / 50
Market cap (Rs/USD mn)	368046 / 4444
Outstanding Shares (mn)	1,753
6m Avg t/o (Rs mn):	1,255
Div yield (%):	-
Bloomberg code:	MRPL IN
NSE code:	MRPL

Stock performance



	1M	3M	1Y
Absolute return	3.4%	49.3%	233.0%

Shareholding pattern (As of Dec '23 end)

Promoter	88.6%
FII+DII	4.1%
Others	7.3%

Δ in stance

(1-Yr)	New	Old
Rating	BUY	ADD
Target Price	257	257

Δ in estimates

(1-Yr)	FY24e	FY25e	FY26e
EPS (New)	19.6	15.7	12.3
EPS (Old)	19.6	15.7	12.3
% Change	-	-	-

Financial Summary

(Rs bn)	FY23	FY24E	FY25E	FY26E
Revenue	1,088.6	800.9	817.6	743.1
YoY Growth	58.0	(28.5)	3.9	(8.7)
EBIDTA	65.0	69.2	57.9	49.1
OPM %	6.0	8.6	7.1	6.6
PAT	26.4	34.4	27.5	21.6
YoY Growth	(11.7)	30.5	(20.0)	(21.5)
ROE	26.8	26.2	17.6	12.1
EPS	15.1	19.6	15.7	12.3
P/E	3.5	9.6	12.0	15.3
BV	56.1	74.8	89.4	101.5
EV/EBITDA	4.0	6.6	7.3	8.1

HARSHRAJ AGGARWAL
Lead Analyst
harshraj.aggarwal@ysil.in

Product Marketing: MRPL follows a multi-pronged strategy:

- **OMCs (80%):** These companies take delivery of MS, HSD (High-Speed Diesel), and LPG, accounting for a significant portion (~7.3mmtpa in FY23) of MRPL's output.
- **PP (5%):** 0.434mmtpa of polypropylene finds direct buyers through MRPL's marketing channels.
- **Direct Sales (15%):** MRPL directly markets 1.4mmtpa of other products, including bitumen, petcoke, sulphur, etc.

Exhibit 1: Petroleum products produced in FY23

Products	Production (mmt)	% Production share
LPG	1.154	7%
POLYPROPYLENE	0.441	3%
MS VI	1.477	9%
MS 95 RON	0.946	6%
XYLOL (XYLENE)	0.001	0%
NAPHTHA	0.054	0%
SKO	0.041	0%
HSD	4.711	28%
HFHSD	1.870	11%
ATF	1.921	11%
MFO	0.433	3%
FO	0.003	0%
BITUMEN	0.166	1%
PET COKE	1.003	6%
SULPHUR	0.239	1%
BENZENE	0.086	1%
REFORMATE	0.681	4%
Total	**15.227**	**89%**
Fuel & Loss	1.889	11%
Crude Processed	**17.116**	**100%**

Source: Company, Yes Sec

Exhibit 2: Petroleum products exported in FY23

Products	Exports (mmt)	% Products Share
POLYPROPYLENE	0.000	0%
MS 95 RON	0.945	17%
NAPHTHA	0.022	0%
HFHSD	1.798	32%
ATF	1.665	29%
MFO	0.486	9%
SULPHUR	0.021	0%
BENZENE	0.042	1%
REFORMATE	0.678	12%
Total	**5.658**	**100%**

Source: Company, Yes Sec

Export-Import matrix: MRPL actively participates in international trade, exporting a significant portion (around 35%) of its products while also importing minimal feedstock, like naphtha for aromatic complex (OMPL) production. Large exports include HSD: ~32%, ATF: 30%, MS: 17% (MS 95 RON, a higher requirement in export market, while India uses a lower RON below 92) and Reformate: 12%. Reformate is a gasoline blending stock produced through catalytic reforming, a process wherein mixed catalysts and hydrogen promote the rearrangement of lower octane naphthenes into higher octane compounds. MRPL's aromatic complex (erstwhile OMPL) is producing high-value reformate instead of Paraxylene, a prudent economic choice that fetches better earnings.

OMPL: Merged in May'22, it endured losses of Rs 72bn, with ~ Rs 30bn of losses to take tax advantage over next 3-4 years. Has acquired equity from ONGC, and outstanding loans of ~Rs40bn.

Fuel retail outlets (ROs): Have over 75 operational retail outlets and advertising for 1,800 more. The target is to have total of 100 operational by year end and add 500 outlets in next three years in southern India, and expansion in West and Northern Part thereafter. MRPL aspires to capture domestic market of 1mmt over 5 years. MRPL outlets are doing better than competitors by ~20-30kl per outlet.

MRPL receives ONGC's KG 98/2 crude oil: MRPL received the first cargo (60,000 tonnes) on newly explored crude on 9th Mar'24. This sweet (low sulphur) indigenous crude would be transformed into various fuels and petrochemicals at MRPL.

MRPL prioritizes self-reliance and sustainability through robust infrastructure:

- **Desalination Plant:** The Desalination Plant has a capacity of 30 mn ltr per day (MLD) and the capacity can be enhanced to 70MLD. It converts seawater into water required for the Refinery processes and runs on Sea Water Reverse Osmosis technology.
- **Boiler System:** A comprehensive boiler system with 12 boilers serves the refinery's steam requirements. These boilers are distributed across three phases (Phases I & II: 3 each, Phase III: 4, Heat Recovery: 2).
- **Solar Power Plant:** Recognizing the importance of renewable energy, MRPL houses solar power project within a Karnataka refinery site, generating a 6MW of peak capacity across its rooftops.
- **Power Plant:** A 240 MW power plant fueled by gas and steam generates 160-170 MW to power the refinery's operations. This plant comprises three phases of varying capacities: Phase I (85 MW), Phase II (45 MW), and Phase III (120 MW).

Maintenance and Expansion Considerations

- **Maintenance Capex:** MRPL dedicates approximately Rs 1.2bn annually to maintain its small equipment through purchases, upgrades, and new additions. Any major replacements are done by plant consultants.
- **Land Area and Expansion:** Currently, MRPL is spread across ~1,800 acres. While there are no immediate expansion plans, a brownfield 1mmtpa expansion is estimated to cost Rs 25-30bn over 4-5 years. This expansion would call for an additional 1,050 acres, underway since 4-5 years. OMPL occupies ~400 acres and is now running at fully capacity; it may look at expansion in future if the need arises.

MRPL's Aromatic Complex: A Powerhouse of Valuable Chemicals

The plant visit offered a fascinating glimpse into MRPL's aromatic complex, a dedicated facility that transforms a key feedstock – naphtha – into a wide range of valuable aromatic hydrocarbons as follows:

Aromatic products: MRPL primarily relies on domestically produced naphtha with minimal imports. Interestingly, MRPL boasts a remarkable 905 KTPA of high-purity (99.7%) Paraxylene, all of which is exported and 273KTPA of Benzene. Delhi, a significant hub for the ONGC group's operations, receives the maximum export volume for these products.

The aromatic complex utilizes a three-block process to transform naphtha into various valuable products:

- **Block One:** This initial stage focuses on removing hydrogen and LPG (~12% output) from the naphtha feedstock and resending back to MRPL while forwarding the rest 88% to Block Two.
- **Block Two:** The processed naphtha from Block One enters Block Two, where it undergoes further transformation. This block produces two key products, Benzene & Toluene; Block Two yields a significant output of 2,200 KTPA, with 1,710 KTPA dedicated to toluene and C9/C10 + aromatics. This stream is further processed to separate xylene and benzene.
- **Block Three:** The final stage focuses on xylene separation. Block Three takes the output from Block Two and separates 4,640 KTPA of xylene from lighter and heavier aromatic compounds. Notably, 4,070 KTPA of this xylene output is further refined, with 3,160 KTPA designated specifically as xylene.

Aromatic Bounty: The Final Products

The aromatic complex's prowess lies in its ability to generate a range of valuable products. The complex thrives on producing significant quantities of benzene. Notably, two distinct streams contribute to the final benzene output:

- **Paraxylene (905 KTPA):** This impressive volume originates directly from the initial naphtha processing stage.
- **Benzene (273 KTPA):** This additional benzene stream is a byproduct of the xylene separation process in Block Three.
- **Reformate:** This valuable product is not only exported but also boasts an over 100% utilization rate. It finds application in the crucial process of mixing Motor Spirit (MS). During FY23, about 30 TMT of Reformate Cargo from aromatic complex was dispatched for the first time in the month of Aug'22.

MRPL's Future Trajectory

Going forward, MRPL is poised for continued growth and innovation. Key areas of focus include:

- **Sustainability:** MRPL is likely to prioritize initiatives that enhance environmental responsibility. This could involve exploring renewable energy sources beyond solar power, optimizing processes to reduce fuel and loss, and potentially incorporating cleaner feedstocks like natural gas.
- **Technological Advancements:** The refinery may embrace advancements in refining technologies to improve efficiency, product yields, and environmental impact.
- **Expansion Potential:** While there are no immediate expansion plans, MRPL will keep a close eye on market dynamics and may consider expansion if and when market conditions favor increased production capacity.
- **Integration with Downstream Industries:** MRPL could explore strategic partnerships or investments in downstream petrochemical industries to create a more integrated value chain.

STORY IN CHARTS

Exhibit 3: Volumes

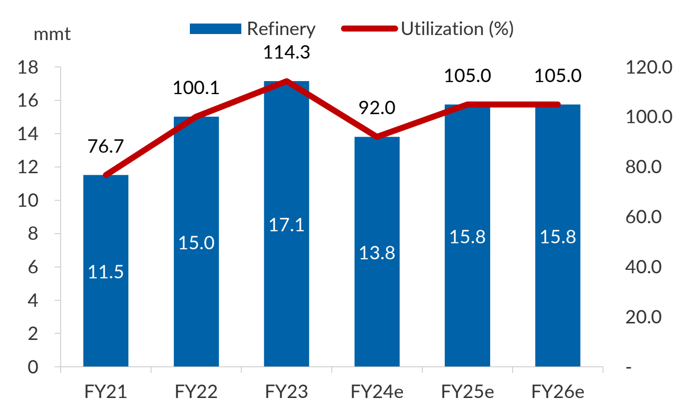
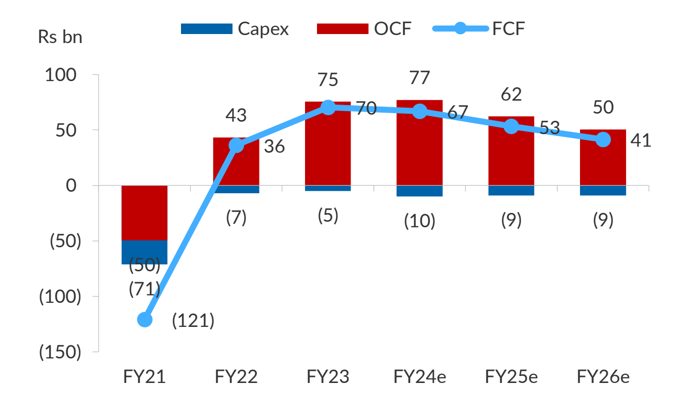


Exhibit 4: Free cash-flows



Source: Company, YES Sec

Exhibit 5: Refining margins

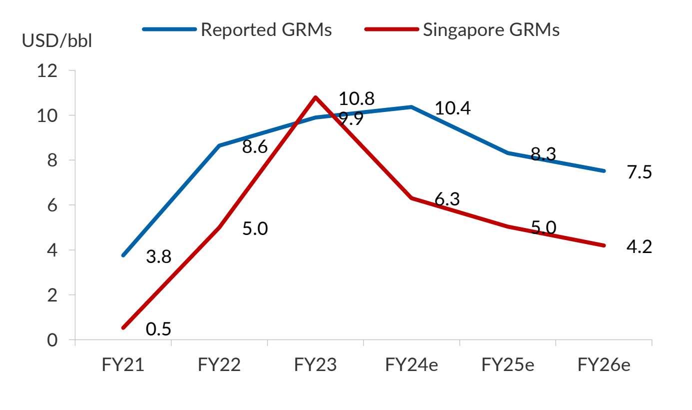
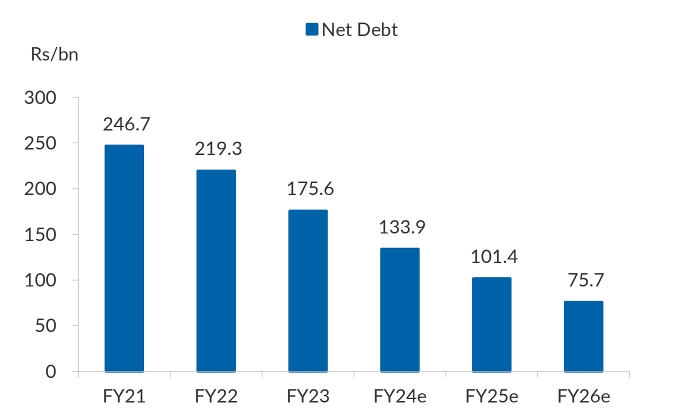


Exhibit 6: Net Debt



Source: Company, YES Sec

Exhibit 7: Return ratios

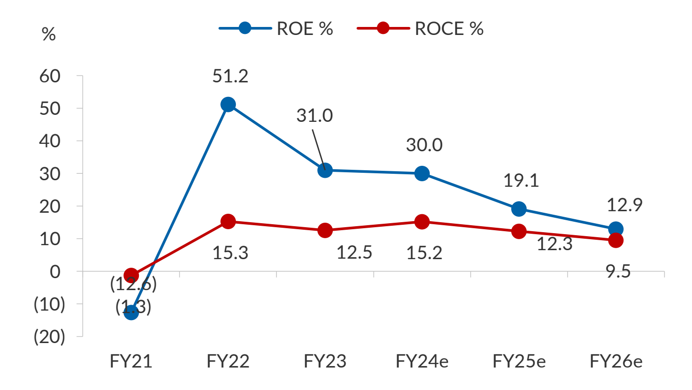
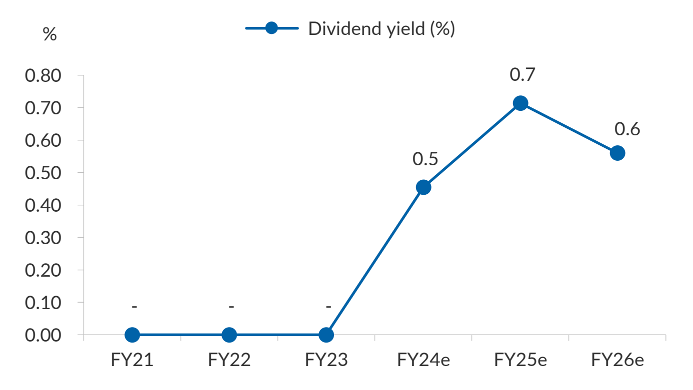


Exhibit 8: Dividend Yield (%)



Source: Company, YES Sec

Exhibit 9: Key Assumptions

	Unit	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24e	FY25e	FY26e
Brent	USD/bbl	50.5	59.1	70.9	61.0	45.7	80.0	95.2	85.0	77.0	70.0
Exchange rate	Rs/USD	67.0	64.5	69.5	70.9	74.2	74.5	80.3	83.0	83.0	83.0
Refining											
Throughput	mmt	16.3	16.4	14.1	11.5	11.5	15.0	17.1	13.8	15.8	15.8
Capacity Utilization	%	108.7	109.6	94.3	76.7	76.7	100.1	114.3	92.0	105.0	105.0
Reported GRMs	USD/bbl	8.1	4.1	(0.2)	3.8	3.8	8.6	9.9	10.4	8.3	7.5
Singapore GRMs	USD/bbl	5.8	7.2	4.9	3.2	0.5	5.0	10.8	6.3	5.0	4.2

Exhibit 10: Ebitda sensitivity to GRM

	Refining capacity utilization (%)	EBITDA (Rs bn)					
		75.0	85.0	95.0	105.0	115.0	125.0
GRMs (USD / bbl)	4.5	14.1	15.9	17.8	19.7	21.6	23.4
	5.5	21.1	23.9	26.7	29.5	32.3	35.1
	6.5	28.1	31.8	35.6	39.3	43.0	46.8
	7.5	35.1	39.7	44.4	**49.1**	53.8	58.5
	8.5	42.1	47.7	53.3	58.9	64.5	70.1
	9.5	49.1	55.6	62.2	68.7	75.3	81.8

Source: Company, YES Sec

Exhibit 11: Target price sensitivity to GRM

	Refining capacity utilization (%)	Target (Rs / sh)					
		75.0	85.0	95.0	105.0	115.0	125.0
GRMs (USD / bbl)	4.5	43	54	66	77	88	100
	5.5	85	103	120	137	154	171
	6.5	128	151	174	197	220	242
	7.5	171	199	228	**257**	285	314
	8.5	214	248	282	316	351	385
	9.5	256	296	336	376	416	456

Source: Company, YES Sec

VIEW & VALUATION

BUY with a TP of Rs 257/sh.

High GRM sensitivity: a USD1/bbl change in GRM changes EBITDA by Rs 9.8bn. BV/share for FY25e/26e: Rs 89/102; debt: equity at 0.6/0.4x FY25e/26e vs 1.7x in FY23.

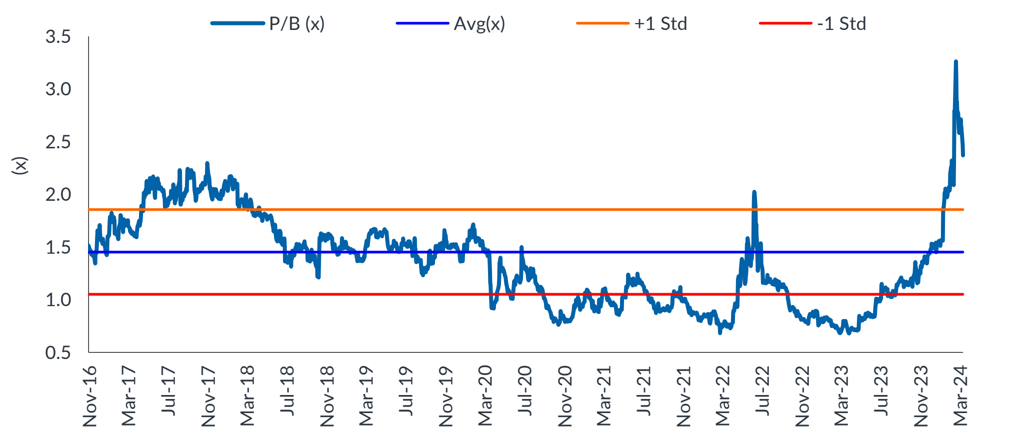
At CMP, stock trades at 7.3x/8.1x FY25e/26e EV/EBITDA & 2.1x/1.9x P/BV. We upgrade from ADD to a BUY rating with an unchanged TP of Rs257 on recent stock price correction.

Key risks: Lower GRM environment, change in crude prices and inventory losses, adverse government policy – subsidy-sharing.

Exhibit 12: Valuation table

EV/EBITDA	FY26E
Multiple	10.70
EBITDA	49,102
Debt	112,991
Cash	37,279
EV	525,388
Equity value	449,676
No of shares	1,753
VPS	257

Exhibit 13: P/BV (x) band, one-year-forward



Source: Company, Yes Sec

FINANCIALS

Exhibit 14: Income statement

Y/e 31 Mar (Rs mn)	FY21	FY22	FY23	FY24E	FY25E	FY26E
Revenue	319,590	697,271	1,088,561	800,852	817,643	743,052
Total Expense	312,623	647,965	1,023,595	731,604	759,774	693,950
Operating Profit	6,968	49,306	64,966	**69,249**	**57,868**	**49,102**
Other Income	1,006	1,028	2,117	2,160	2,203	2,247
Depreciation	11,580	10,877	11,867	11,224	11,654	12,024
EBIT	(3,607)	39,456	55,216	60,184	48,417	39,324
Interest	5,545	12,073	12,853	7,964	6,666	6,553
Extraordinary Item	-	(300)	25	-	-	-
PBT	(9,151)	27,083	42,389	**52,219**	**41,750**	**32,771**
Tax	(1,540)	(2,469)	16,005	17,807	14,237	11,175
PAT	(7,612)	29,553	26,384	**34,413**	**27,514**	**21,596**
Adj. PAT	(7,612)	29,853	26,368	34,413	27,514	21,596
Eps	(4.3)	16.9	15.1	19.6	15.7	12.3

Exhibit 15: Balance sheet

Y/e 31 Mar (Rs mn)	FY21	FY22	FY23	FY24E	FY25E	FY26E
Equity capital	17,527	17,527	17,527	17,527	17,527	17,527
Reserves	24,854	54,437	80,820	113,645	139,141	160,448
Net worth	42,381	71,963	98,347	**131,171**	**156,667**	**177,975**
Debt	238,552	211,092	167,332	126,332	104,332	104,332
Deferred tax liab (net)	-	-	-	-	-	-
Capital Employed	280,933	283,055	265,678	**257,503**	**260,999**	**282,306**
Fixed assets	219,395	215,536	208,706	207,481	204,827	201,803
Investments	155	155	161	161	161	161
Net working capital	61,383	67,364	56,812	49,861	56,011	80,342
Inventories	71,028	104,869	67,766	80,712	69,376	67,528
Sundry debtors	24,507	43,277	44,694	43,120	38,800	37,414
Cash & Bank Balance	521	439	389	1,090	11,561	37,279
Other current assets	31,589	36,308	29,440	29,440	29,440	29,440
Sundry creditors	40,031	93,672	61,688	80,712	69,376	67,528
Other liabilities	26,230	23,856	23,790	23,790	23,790	23,790
Application of Funds	280,933	283,055	265,678	**257,503**	**260,999**	**282,306**

Exhibit 16: Cash flow statement

Y/e 31 Mar (Rs mn)	FY21	FY22	FY23	FY24E	FY25E	FY26E
PBT	(7,612)	29,553	26,384	52,219	41,750	32,771
Depreciation & amortization	11,580	10,877	11,867	11,224	11,654	12,024
Interest expense	5,364	11,720	12,686	7,964	6,666	6,553
(Inc)/Dec in working capital	(34,257)	(1,901)	3,099	7,652	4,321	1,386
Tax paid	108	(2,630)	(7,658)	(17,807)	(14,237)	(11,175)
Less: Interest/Dividend Income Received	(42)	(47)	(218)	165	734	1,871
Other operating Cash Flow	(3,324)	(2,609)	17,484			
Cash flow from operating activities	(28,182)	44,963	63,644	**61,418**	**50,889**	**43,430**
Capital expenditure	(8,977)	(6,113)	(7,026)	(10,000)	(9,000)	(9,000)
Inc/(Dec) in investments	(12,169)	2	(3)	-	-	-
Add: Interest/Dividend Income Received	132	163	297	-	-	-
Cash flow from investing activities	**(21,014)**	**(5,947)**	**(6,732)**	**(10,000)**	**(9,000)**	**(9,000)**
Inc/(Dec) in share capital	75,144	15,546	6,139	-	-	-
Inc/(Dec) in debt	(18,660)	(46,727)	(51,649)	(41,000)	(22,000)	-
Dividend Paid	-	-	-	(1,753)	(2,751)	(2,160)
Others	(7,047)	(8,037)	(11,389)	(7,964)	(6,666)	(6,553)
Cash flow from financing activities	49,436	(39,218)	(56,899)	**(50,717)**	**(31,418)**	**(8,713)**
Net cash flow	**240**	**(203)**	**13**	**701**	**10,471**	**25,717**

Exhibit 17: Du-pont analysis

Y/e 31 Mar (Rs mn)	FY21	FY22	FY23	FY24E	FY25E	FY26E
Tax burden (x)	0.8	1.1	0.6	0.7	0.7	0.7
Interest burden (x)	2.5	0.7	0.8	0.9	0.9	0.8
EBIT margin (x)	(0.0)	0.1	0.1	0.1	0.1	0.1
Asset turnover (x)	1.0	1.9	2.9	2.2	2.3	2.0
Financial leverage (x)	5.6	6.5	4.4	3.1	2.5	2.2
RoE (%)	(12.9)	51.7	31.0	30.0	19.1	12.9

Exhibit 18: Ratio analysis

Y/e 31 Mar	FY21	FY22	FY23	FY24E	FY25E	FY26E
Growth matrix (%)						
Revenue growth	(41.6)	107.3	58.0	(28.5)	3.9	(8.7)
Op profit growth	(4.2)	2.1	106.0	2.0	2.0	2.0
EBIT growth	(25.3)	117.7	6.5	(38.0)	(16.3)	(1.7)
Net profit growth	(71.9)	(492.2)	(11.7)	30.5	(20.0)	(21.5)
Profitability ratios (%)						
OPM	2.2	7.1	6.0	8.6	7.1	6.6
EBIT margin	(1.1)	5.7	5.1	7.5	5.9	5.3
Net profit margin	(2.4)	4.2	2.4	4.3	3.4	2.9
RoCE	(1.3)	13.9	20.8	23.4	18.6	13.9
RoE	(18.0)	41.1	26.8	26.2	17.6	12.1
RoA	(2.7)	9.0	7.1	9.2	7.7	6.0
Per share ratios						
EPS	(4.3)	16.9	15.1	19.6	15.7	12.3
Dividend per share	-	-	-	1.0	1.6	1.2
Cash EPS	2.6	27.0	25.5	26.0	22.3	19.2
Book value per share	28.3	48.0	65.6	74.8	89.4	101.5
Valuation ratios						
P/E	(8.9)	2.5	3.5	9.6	12.0	15.3
P/CEPS	14.7	1.5	2.1	7.3	8.5	9.9
P/B	1.4	0.9	0.8	2.5	2.1	1.9
EV/EBIDTA	43.9	5.8	4.0	6.6	7.3	8.1
Payout (%)						
Dividend payout	-	-	-	5.1	10.0	10.0
Tax payout	16.8	(9.1)	37.8	34.1	34.1	34.1
Liquidity ratios						
Debtor days	17.5	14.4	12.9	14.0	14.0	14.0
Inventory days	86.3	51.6	31.9	35.0	35.0	35.0
Creditor days	50.4	39.2	28.7	35.0	35.0	35.0

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

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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: 7th Floor, Urmi Estate Tower A, Ganpatrao Kadam Marg, Opp. Peninsula Business Park, Lower Parel (West), Mumbai – 400 013, Maharashtra, India.

✉ research@ysil.in | Website: www.yesinvest.in

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

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Digitally signed by HARSHRAJ VIJAY AGGARWAL
Date: 2024.03.14 09:25:25 +05'30'

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