

# Indraprastha Gas

Estimate change



TP change



Rating change



**CMP: INR390**

**TP: INR350 (-10%)**

**Sell**

## Volume growth to moderate amid multiple headwinds

- Indraprastha Gas (IGL)'s 2QFY24 EBITDA, at INR6.6b, came in line with our estimate. However, its PAT, at INR5.3b, delivered 24% beat. Volumes rose 3% YoY to 8.3mmscmd during the quarter.
- Management expects that ~15% of IGL's volume may be hit due to the implementation of the recently approved Delhi Motor Vehicle Aggregator and Delivery Service Provider Scheme. Although management has kept its volume guidance unchanged at 9mmscmd as of end-FY24, the outlook for FY25 remains uncertain due to the implementation of the aforementioned scheme.
- Lack of adequate infrastructure and paucity of credible EV options (Tata Tiago being the only credible option in sub-INR1m category) remain the key challenges in implementation of the scheme. However, given the upcoming elections in Delhi in 2025, we believe the policy noise around EVs will remain high in Delhi, thereby capping the valuation upside.
- Owing to stronger-than-expected margins in 1HFY24, we raise our EBITDA/scm assumption to INR8 from 2HFY24 onwards. Subsequently, we raise our EBITDA/PAT estimates by 3%/7% for FY24 and by 13%/14% for FY25.
- We expect IGL's volumes to grow at 5%/8% in FY24/FY25, as against an 11% CAGR during FY16-23, owing to multiple headwinds. We value the stock at 12x FY25E adj. EPS of INR25.1 and add value of JV at 25% holding company discount to arrive at our TP of INR350. **We reiterate our Sell rating.**

## EBITDA in line but IGL delivers a beat on PAT

- Total volumes were in line with our estimate at 8.3mmscmd (up 3% YoY).
- **CNG volumes stood at 6.25mmscmd (up 3% YoY)**
- PNG volumes stood at 2.06mmscmd (up 3% YoY)
- EBITDA/scm came in at INR8.6 (vs. our est. of INR8 and INR8.6 in 1QFY24)
- **Gross margin came in at INR14.1/scm (vs. INR14.4/scm in 1QFY24)**
- Opex stood at INR5.5/scm (vs. INR5.8/scm in 1QFY24)
- Resulting EBITDA was in line at INR6.6b (up 25% YoY)
- PAT was above our est. at INR5.3b (up 29% YoY) due to higher-than-estimated other income at INR1.3b (vs. INR457m in 1QFY24)
- IGL's share in CUGL and MNGL added INR902m to its consol. profit (up 29% YoY) in 2QFY24.
- **For 1HFY24, EBITDA was up 13% YoY to INR13b, with EBITDA/scm at INR8.6 (down 7% YoY). PAT was up 16% YoY to INR9.7b during the period.**
- Total volumes were up 3% YoY to 8.3mmscmd,
  - with CNG at 6.2mmscmd (up 3% YoY) and
  - PNG at 2mmscmd (up 3% YoY).
- IGL's share in CUGL and MNGL added INR1.7b to its consol. profit (up 41% YoY) during the period.

Bloomberg	IGL IN
Equity Shares (m)	700
M.Cap.(INRb)/(USDb)	272.9 / 3.3
52-Week Range (INR)	516 / 376
1, 6, 12 Rel. Per (%)	-12/-26/-13
12M Avg Val (INR M)	845

### Financials & Valuations (INR b)

Y/E March	FY23	FY24E	FY25E
Sales	141.5	135.1	137.8
EBITDA	20.4	25.5	26.2
Adj. PAT	14.5	18.0	18.2
Adj. EPS (INR)	20.6	25.7	25.9
EPS Gr. (%)	9.9	24.5	1.0
BV/Sh.(INR)	101.2	119.2	137.4

### Ratios

Net D:E	-0.4	-0.3	-0.3
RoE (%)	20.6	23.3	20.2
RoCE (%)	19.9	22.5	19.6
Payout (%)	63.0	30.0	30.0

### Valuation

P/E (x)	18.9	15.2	15.0
P/BV (x)	3.9	3.3	2.8
EV/EBITDA (x)	12.1	9.7	9.3
Div. Yield (%)	3.3	2.0	2.0
FCF Yield (%)	3.7	2.2	3.1

### Shareholding pattern (%)

As On	Sep-23	Jun-23	Sep-22
Promoter	45.0	45.0	45.0
DII	26.2	25.2	25.3
FII	20.9	22.1	21.0
Others	7.8	7.7	8.7

FII Includes depository receipts

**Abhishek Nigam – Research Analyst** (Abhishek.Nigam@MotilalOswal.com)

**Research Analyst: Aman Chowdhary** (Aman.Chowdhary@MotilalOswal.com) | **Rohit Thorat** (Rohit.Thorat@MotilalOswal.com)

**Investors are advised to refer through important disclosures made at the last page of the Research Report.**

Motilal Oswal research is available on [www.motilaloswal.com/Institutional-Equities](http://www.motilaloswal.com/Institutional-Equities), Bloomberg, Thomson Reuters, Factset and S&P Capital.

**Valuation and view**

- The volume growth trajectory in the near-to-medium term will remain slow as PNG supply faces constraints, in our opinion:
  - I/C PNG volume growth is coming to a standstill amid competition from alternative fuels
  - Stagnant volume growth in D-Haryana segment over the past few quarters amid limited investment and ongoing dispute
  - The single-unit nature of landed house in Delhi / new geographical areas (unlike skyscrapers in Mumbai), makes it difficult to maintain high volume growth rates in D-PNG.
- These three categories account for 2mmscmd (~25% of volumes) and are a drag on growth. As such, while IGL's volumes reported 11% CAGR over FY16-23, we are building in 5%/8% growth in FY24/FY25E. Lastly, we believe EBITDA/scm may have peaked in 1HFY24 and could decline going forward.
- We value the stock at 12x FY25E adj. EPS of INR25.1 and add value of JV at 25% holding company discount to arrive at our TP of INR350. **We reiterate our Sell rating.**

**Quarterly performance**

Y/E March									(INR m)			
	FY23				FY24				FY23	FY24E	FY24	Var vs
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE			2QE	Est
<b>Net Sales</b>	<b>31,939</b>	<b>35,540</b>	<b>37,108</b>	<b>36,872</b>	<b>34,070</b>	<b>34,585</b>	<b>34,056</b>	<b>32,349</b>	<b>1,41,459</b>	<b>1,35,061</b>	<b>35,634</b>	<b>-3%</b>
Change (%)	154.0	94.1	67.5	53.3	6.7	-2.7	-8.2	-12.3	83.5	-4.5	0.3	
<b>EBITDA</b>	<b>6,175</b>	<b>5,275</b>	<b>4,285</b>	<b>4,663</b>	<b>6,424</b>	<b>6,569</b>	<b>6,289</b>	<b>6,226</b>	<b>20,398</b>	<b>25,509</b>	<b>6,248</b>	<b>5%</b>
EBITDA (INR/scm)	8.6	7.1	5.7	6.3	8.6	8.6	7.9	7.9	6.9	8.2	8.0	7%
Change (%)	62.1	-0.5	-8.8	-6.8	4.0	24.5	46.8	33.5	8.4	25.1	18.4	
Depreciation	857	914	925	938	989	1,022	1,047	1,128	3,634	4,186	1,036	-1%
Interest	24	31	26	26	24	25	28	35	106	111	28	
Other Income	307	1,100	557	654	457	1,340	496	542	2,619	2,834	560	139%
<b>PBT before EO</b>	<b>5,602</b>	<b>5,430</b>	<b>3,891</b>	<b>4,354</b>	<b>5,867</b>	<b>6,862</b>	<b>5,711</b>	<b>5,605</b>	<b>19,277</b>	<b>24,045</b>	<b>5,743</b>	<b>19%</b>
Tax	1,394	1,269	1,109	1,057	1,483	1,514	1,437	1,844	4,827	6,059	1,446	5%
Rate (%)	24.9	23.4	28.5	24.3	25.3	22.1	25.2	32.9	25.0	25.2	25.2	
<b>PAT</b>	<b>4,209</b>	<b>4,162</b>	<b>2,783</b>	<b>3,298</b>	<b>4,384</b>	<b>5,348</b>	<b>4,273</b>	<b>3,761</b>	<b>14,450</b>	<b>17,986</b>	<b>4,298</b>	<b>24%</b>
PAT (INR/scm)	5.9	5.6	3.7	4.4	5.9	7.0	5.4	4.7	4.9	5.8	5.5	27%
Change (%)	72.3	3.9	-9.8	-8.8	4.2	28.5	53.6	14.1	9.9	24.5	3.3	
<b>Gas volumes (mmscmd)</b>												
CNG	5.93	6.09	6.07	6.11	6.17	6.25	6.37	6.30	6.05	6.27	6.27	0%
PNG	1.96	2.00	2.05	2.14	2.03	2.06	2.24	2.41	2.04	2.18	2.22	-7%
<b>Total</b>	<b>7.89</b>	<b>8.09</b>	<b>8.12</b>	<b>8.26</b>	<b>8.20</b>	<b>8.30</b>	<b>8.60</b>	<b>8.71</b>	<b>8.09</b>	<b>8.45</b>	<b>8.49</b>	<b>-2%</b>



### Highlights from the management commentary

- Roughly 15% of the company's volume growth may be hit by implementation of Delhi Motor Vehicle Act
- Industrial volumes reduced due to lower prices of alternate fuels
- Commissioned 30 EV charging stations till now, will target to reach 50 by end of the year
- Added eight new CNG stations and 70,000 new D-PNG connections during the quarter
- During 1HFY24, capex was at INR4.76b
- Capex target is around INR14-15b/annually over the next few years but may need to rationalize based on the impact of the newly announced aggregator policy
- 60-65% of IGL's CNG sales comes from Delhi city
- ~15% of it comes from aggregators
- CNG growth rate in Delhi is at 3%, for Gurgaon it is at 5%, for Ghaziabad it is 11-12% and for new GAs it is at 30-60%
- Segment wise CNG volume breakup
- 40% comes from private cars
- 15% from aggregators
- 6% from auto rickshaws
- 20% from busses
- Currently volumes are at 8.5mmscmd and reach 9mmscmd by the end of FY24
- FY25 volumes will depend on implementation of the recently announced EV policy
- There are no restrictions on movement of CNG vehicles into Delhi from other regions
- Only movement of interstate buses (not on CNG) is restricted
- Interstate busses which are BS-6 compliant can come into Delhi
- IGL in talks to convert these busses to CNG
- None of the new GAs are making profits since volumes are quite low
- Will turn profitable once volumes go up
- Two GAs are making losses even at EBITDA level
- In Delhi, CNG is 45% cheaper than petrol
- In new GAs, it is 25%-30% cheaper
- CNG conversions at 15,900/month for 2QFY24
- CNG conversions had reached lows of 12.5-13k/month during high gas prices while peak was at 17k/month

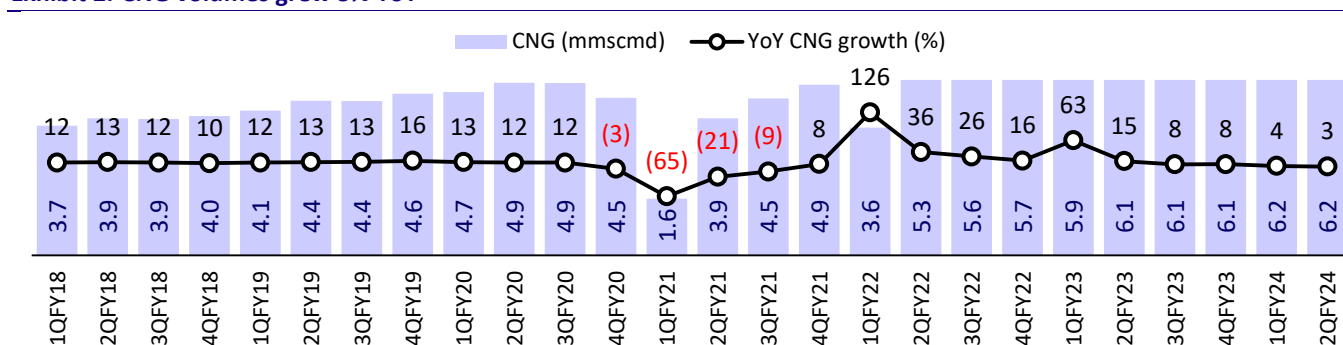
## Key charts for the quarter

Exhibit 1: Operational highlights

Particulars	FY22				FY23				FY24		2QFY24	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	YoY (%)	QoQ (%)
Realization (INR/scm)	26.0	27.5	31.5	34.5	44.5	47.8	49.7	49.6	45.7	45.3	-5.2	-0.8
Gas cost (INR/scm)	11.6	13.9	19.7	21.8	30.2	35.1	38.3	37.6	31.3	31.2	-11.1	-0.4
Gross Margin (INR/scm)	14.4	13.6	11.8	12.7	14.3	12.7	11.3	12.0	14.4	14.1	11.2	-1.8
EBITDA (INR/scm)	7.9	8.0	6.7	7.2	8.6	7.1	5.7	6.3	8.6	8.6	21.3	-0.1
PAT (INR/scm)	5.0	6.0	4.4	5.2	5.9	5.6	3.7	4.4	5.9	7.0	25.2	19.2
<b>Volumes</b>												
CNG (MMSCMD)	3.6	5.3	5.6	5.7	5.9	6.1	6.1	6.1	6.2	6.2	2.6	1.3
PNG (MMSCMD)	1.7	1.9	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.8	1.2
<b>Total (MMSCMD)</b>	<b>5.3</b>	<b>7.2</b>	<b>7.7</b>	<b>7.7</b>	<b>7.9</b>	<b>8.1</b>	<b>8.1</b>	<b>8.3</b>	<b>8.2</b>	<b>8.3</b>	<b>2.6</b>	<b>1.2</b>
<b>Per unit realisation</b>												
CNG (INR/scm)	29.3	30.0	34.1	38.0	49.9	52.9	54.1	54.9	50.8	44.5	-15.9	-12.4
CNG (INR/kg)	41.1	42.0	47.8	53.2	69.9	74.1	75.8	76.9	71.2	62.3	-15.9	-12.4
PNG (INR/scm)	26.2	30.5	35.4	37.3	46.3	51.3	54.2	52.9	48.1	46.6	-9.1	-3.1

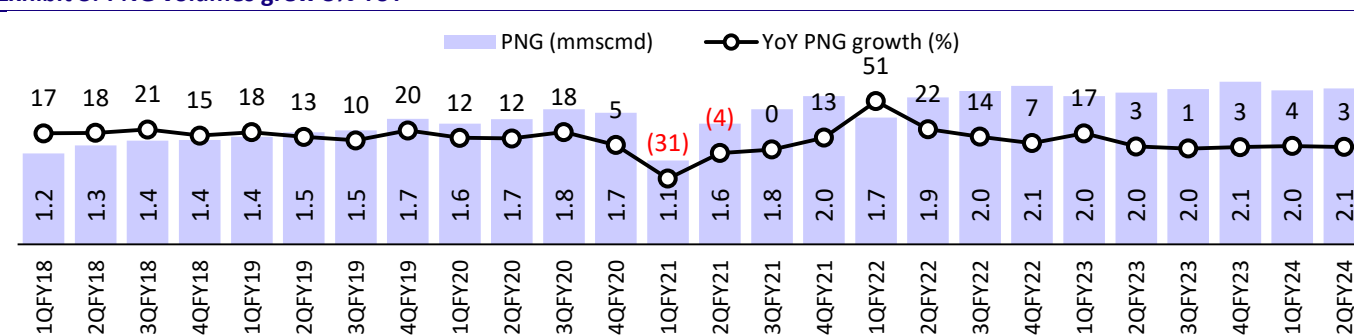
Sources: Company, MOFSL

Exhibit 2: CNG volumes grew 3% YoY



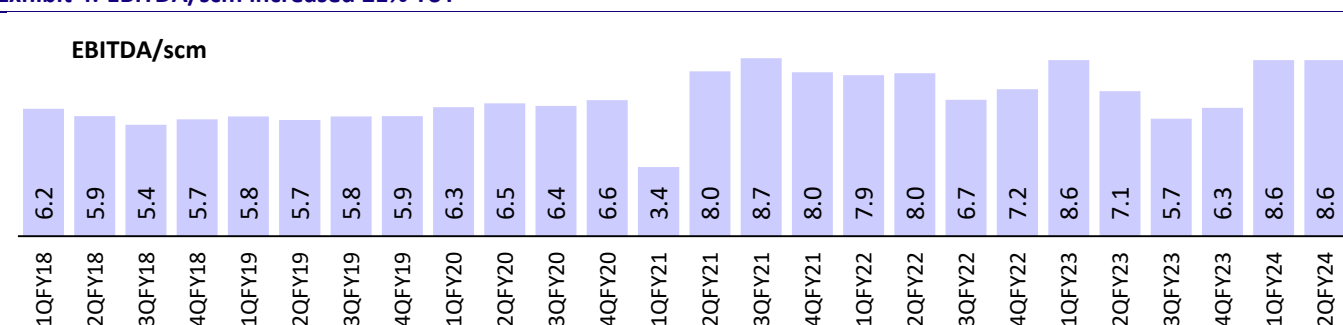
Sources: Company, MOFSL

Exhibit 3: PNG volumes grew 3% YoY



Sources: Company, MOFSL

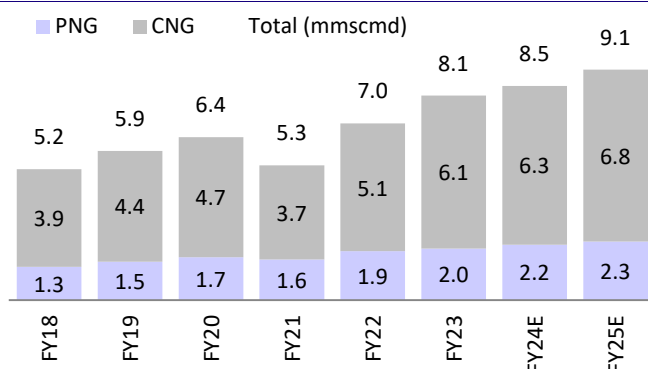
Exhibit 4: EBITDA/scm increased 21% YoY



Sources: Company, MOFSL

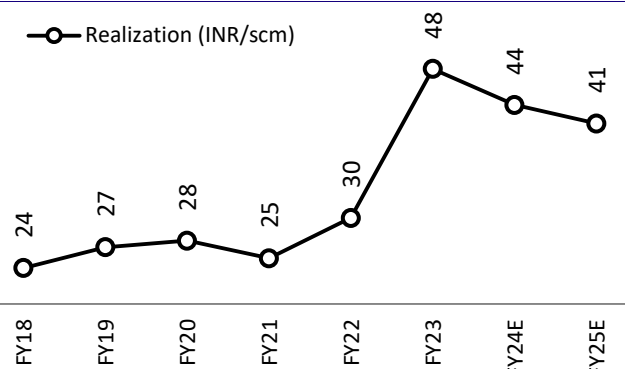
## Story in charts

**Exhibit 5: Volumes to register a CAGR of 6% over FY23-25**



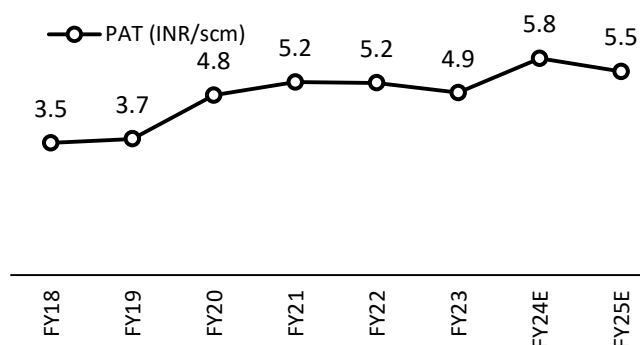
Sources: Company, MOFSL

**Exhibit 6: Realization trends way above its historical levels**



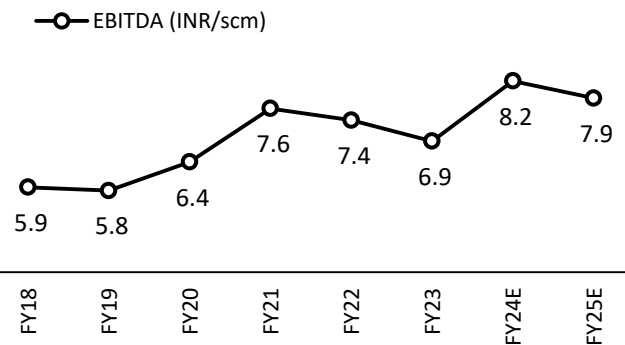
Sources: Company, MOFSL

**Exhibit 7: Profitability (in INR/scm) to normalize in FY24-25**



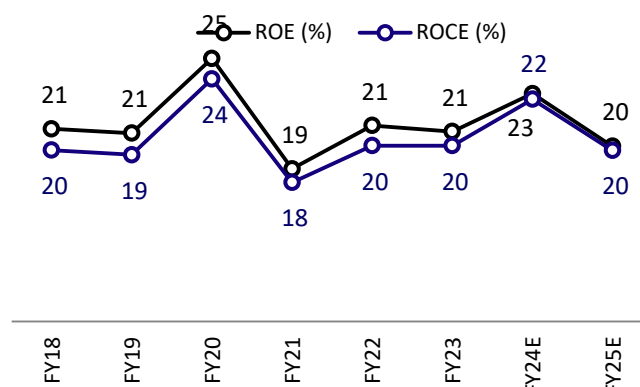
Sources: Company, MOFSL

**Exhibit 8: EBITDA/scm to be moderate in FY25**



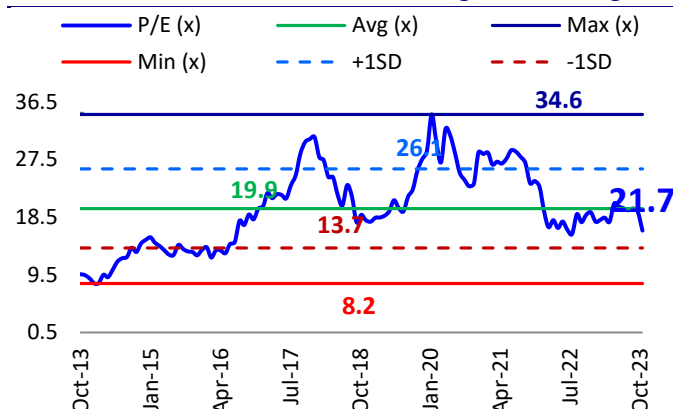
Sources: Company, MOFSL

**Exhibit 9: Return ratio profile for IGL**



Sources: Company, MOFSL

**Exhibit 10: Stock trades 9% above its long-term P/E avg.**



Sources: Company, MOFSL

## Financials and valuations

### Income Statement

(INR m)

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
<b>Net Sales</b>	<b>45,921</b>	<b>57,600</b>	<b>64,853</b>	<b>49,408</b>	<b>77,100</b>	<b>1,41,459</b>	<b>1,35,061</b>	<b>1,37,838</b>
Change (%)	20.4	25.4	12.6	-23.8	56.0	83.5	-4.5	2.1
<b>EBITDA</b>	<b>11,133</b>	<b>12,521</b>	<b>15,196</b>	<b>14,830</b>	<b>18,811</b>	<b>20,398</b>	<b>25,509</b>	<b>26,162</b>
As a percentage of Net Sales	24.2	21.7	23.4	30.0	24.4	14.4	18.9	19.0
Depreciation	1,813	2,011	2,523	2,904	3,171	3,634	4,186	4,583
Interest	17	21	81	113	132	106	111	100
Other Income	1,021	1,510	1,564	1,502	2,150	2,619	2,834	2,801
<b>PBT</b>	<b>10,325</b>	<b>12,000</b>	<b>14,157</b>	<b>13,315</b>	<b>17,659</b>	<b>19,277</b>	<b>24,045</b>	<b>24,280</b>
Tax	3,617	4,134	2,791	3,258	4,509	4,827	6,059	6,119
Rate (%)	35.0	34.4	19.7	24.5	25.5	25.0	25.2	25.2
<b>PAT</b>	<b>6,708</b>	<b>7,867</b>	<b>11,365</b>	<b>10,057</b>	<b>13,150</b>	<b>14,450</b>	<b>17,986</b>	<b>18,161</b>
<b>Adj. PAT</b>	<b>6,604</b>	<b>7,867</b>	<b>11,365</b>	<b>10,057</b>	<b>13,150</b>	<b>14,450</b>	<b>17,986</b>	<b>18,161</b>
Change (%)	10.6	19.1	44.5	-11.5	30.8	9.9	24.5	1.0

### Balance Sheet

(INR m)

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Share Capital	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Reserves	33,729	39,899	49,224	57,319	67,962	69,466	82,056	94,769
<b>Net Worth</b>	<b>35,129</b>	<b>41,299</b>	<b>50,624</b>	<b>58,719</b>	<b>69,362</b>	<b>70,866</b>	<b>83,456</b>	<b>96,169</b>
Deferred Tax	2,253	2,678	2,119	2,422	2,737	3,168	3,168	3,168
<b>Capital Employed</b>	<b>37,382</b>	<b>43,977</b>	<b>52,743</b>	<b>61,140</b>	<b>72,098</b>	<b>74,033</b>	<b>86,624</b>	<b>99,337</b>
Gross Fixed Assets	41,364	47,607	55,744	65,535	75,345	86,423	95,423	1,04,423
Less: Depreciation	17,044	19,054	21,577	24,481	27,651	31,285	35,471	40,054
<b>Net Fixed Assets</b>	<b>24,320</b>	<b>28,553</b>	<b>34,167</b>	<b>41,055</b>	<b>47,694</b>	<b>55,138</b>	<b>59,952</b>	<b>64,369</b>
Capital WIP	3,860	4,781	7,767	8,469	13,786	14,337	20,337	26,337
Rights to use assets	0	0	1,220	1,984	2,203	2,067	2,067	2,067
Investments	11,477	15,440	2,581	18,258	19,758	6,773	6,773	6,773
<b>Curr. Assets, Loans and Adv.</b>								
Inventory	524	509	511	456	455	492	469	479
Debtors	2,261	2,215	1,704	2,607	5,206	9,034	8,625	8,802
Cash and Bank Balance	5,580	6,071	21,799	11,323	13,616	26,332	26,809	29,669
Cash	2,037	712	6,677	903	750	1,056	1,532	4,393
Bank balance	3,544	5,359	15,122	10,420	12,866	25,276	25,276	25,276
Loans and Advances	149	153	154	213	142	143	143	143
Other Current Assets	1,110	1,772	1,819	1,508	1,664	3,444	3,444	3,444
<b>Current Liab. and Prov.</b>								
Liabilities	11,690	13,687	16,172	21,007	28,130	38,288	36,556	37,308
Provisions	210	1,830	2,808	3,727	4,295	5,438	5,438	5,438
<b>Net Current Assets</b>	<b>-2,275</b>	<b>-4,797</b>	<b>7,007</b>	<b>-8,627</b>	<b>-11,342</b>	<b>-4,282</b>	<b>-2,505</b>	<b>-209</b>
<b>Application of Funds</b>	<b>37,382</b>	<b>43,977</b>	<b>52,743</b>	<b>61,139</b>	<b>72,099</b>	<b>74,033</b>	<b>86,624</b>	<b>99,337</b>

## Financials and valuations

### Ratios

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
<b>Basic (INR)</b>								
EPS (Standalone)	9.4	11.2	16.2	14.4	18.8	20.6	25.7	25.9
EPS (Consolidated)	10.5	12.5	18.4	16.2	22.0	24.2	30.7	31.4
Cash EPS	12.0	14.1	19.8	18.5	23.3	25.8	31.7	32.5
Book Value	50.2	59.0	72.3	83.9	99.1	101.2	119.2	137.4
DPS	2.0	2.4	2.8	3.6	5.5	13.0	7.7	7.8
Payout	21	21	17	25	29	63	30	30
<b>Valuation (x)</b>								
P/E (Standalone)	41.3	34.7	24.0	27.1	20.8	18.9	15.2	15.0
P/E (Consolidated)	37.3	31.2	21.2	24.1	17.7	16.1	12.7	12.4
Cash P/E	32.4	27.6	19.7	21.1	16.7	15.1	12.3	12.0
EV/EBITDA	24.0	21.3	16.5	17.6	13.8	12.1	9.7	9.3
EV/Sales	5.8	4.6	3.9	5.3	3.4	1.7	1.8	1.8
Price/Book Value	7.8	6.6	5.4	4.6	3.9	3.9	3.3	2.8
Dividend Yield (%)	0.5	0.6	0.7	0.9	1.4	3.3	2.0	2.0
<b>Profitability Ratios (%)</b>								
RoE	20.8	20.6	24.7	18.4	20.5	20.6	23.3	20.2
RoCE	19.6	19.4	23.6	17.8	19.9	19.9	22.5	19.6
RoIC	38.9	40.4	53.2	41.2	48.5	48.8	53.8	46.6
<b>Turnover Ratios</b>								
Debtors (No. of Days)	21	26	33	23	20	20	15	16
Asset Turnover (x)	1.3	1.4	1.3	0.9	1.2	1.9	1.7	1.5
<b>Leverage Ratio</b>								
Net Debt/Equity ratio (x)	-0.2	-0.1	-0.4	-0.2	-0.2	-0.4	-0.3	-0.3

### Cash Flow Statement

(INR m)

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
OP/(Loss) before Tax	10,325	12,000	14,157	13,315	17,659	19,283	24,045	24,280
Depreciation	1,813	2,011	2,523	2,904	3,171	3,634	4,186	4,583
Interest and Finance charges	1	10	65	97	90	87	111	100
Direct Taxes Paid	-3,303	-3,688	-3,442	-2,895	-3,759	-4,833	-6,059	-6,119
(Inc.)/Dec. in Wkg. Capital	841	2,642	1,721	3,473	3,777	6,469	-1,301	565
Others	-884	-1,403	-1,416	-1,434	-1,958	-2,333	0	0
<b>CF from Op. Activity</b>	<b>8,793</b>	<b>11,571</b>	<b>13,608</b>	<b>15,460</b>	<b>18,979</b>	<b>22,306</b>	<b>20,982</b>	<b>23,409</b>
(Inc.)/Dec. in FA and CWIP	-4,698	-6,807	-9,632	-8,829	-13,370	-12,221	-15,000	-15,000
<b>Free Cash Flow</b>	<b>4,095</b>	<b>4,764</b>	<b>3,976</b>	<b>6,631</b>	<b>5,610</b>	<b>10,085</b>	<b>5,982</b>	<b>8,409</b>
(Pur.)/Sale of Investments	-10,515	-24,912	-3,275	-32,560	-13,454	-56,286	0	0
Others	8,044	20,510	7,700	23,125	10,976	60,093	0	0
<b>CF from Inv. Activity</b>	<b>-7,170</b>	<b>-11,208</b>	<b>-5,207</b>	<b>-18,264</b>	<b>-15,848</b>	<b>-8,414</b>	<b>-15,000</b>	<b>-15,000</b>
Dividends Paid (incl. tax)	-842	-1,685	-2,025	-1,960	-2,519	-12,948	-5,396	-5,448
<b>CF from Fin. Activity</b>	<b>-842</b>	<b>-1,688</b>	<b>-2,435</b>	<b>-2,970</b>	<b>-3,285</b>	<b>-13,586</b>	<b>-5,507</b>	<b>-5,549</b>
<b>Inc./(Dec.) in Cash</b>	<b>781</b>	<b>-1,325</b>	<b>5,966</b>	<b>-5,774</b>	<b>-153</b>	<b>306</b>	<b>475</b>	<b>2,861</b>
Add: Opening Balance	1,256	2,037	712	6,678	904	751	1,057	1,532
<b>Closing Balance</b>	<b>2,037</b>	<b>712</b>	<b>6,678</b>	<b>904</b>	<b>751</b>	<b>1,057</b>	<b>1,532</b>	<b>4,393</b>

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.

#### Disclosures

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](http://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://online.reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

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](http://www.nseindia.com), [www.bseindia.com](http://www.bseindia.com). Research Analyst views on Subject Company may vary based on Fundamental 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. 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 appearances and trading securities held by a research analyst account.

#### 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.

#### Specific Disclosures

- 1 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.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 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
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- 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 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. Neither the Firm, nor 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.