

Oil & Gas

Our latest O&G updates

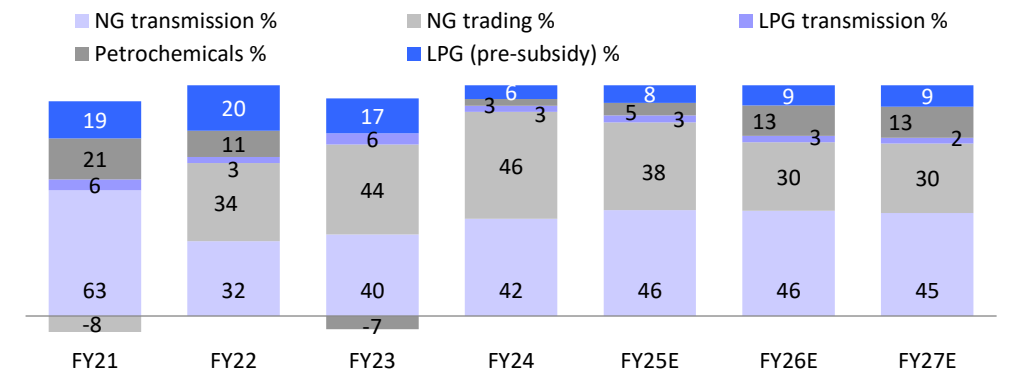
CGDs: Tax reform vital for long-term margin sustainability

- As per a recent [media article](#), the inclusion of natural gas under the GST framework would not be on the agenda for the upcoming 55th GST Council meeting scheduled for 21st Dec'24. However, based on our interaction with GAIL, Indraprastha Gas (IGL) and Adani Total Gas recently, we believe that tax reform now is crucial for city gas distribution (CGD) companies to sustain their long-term margins and cost competitiveness and could be a key catalyst in 4QFY25-1HFY26.
- Key takeaways from the meetings are as follows: 1) gas demand remains robust and GAIL maintains its outlook of stable growth in both transmission and marketing business; 2) tax reform for CGD companies has acquired a new sense of urgency given the recent de-allocation of APM gas and the resulting adverse impact on EBITDA/scm margins; 3) if margins are not bolstered (either via price hikes or tax relief), then ultimately the network expansion is likely to suffer; 4) nearly all CGD companies we have interacted with believe staggered price hikes for CNG are inevitable without tax relief, 5) the current APM availability across companies is 38-40% for CNG and 100% for D-PNG segment.
- In the CGD sector, Mahanagar Gas remains our preferred pick given its cheaper valuation vs. IGL for a similar growth profile. We also highlight GAIL as a beneficiary of rising transmission/marketing/petchem volume growth, a potential tariff hike in 4QFY25, and a long-term value unlocking opportunity with GAIL Gas monetization.

GAIL: Robust volume growth across transmission, marketing, petchem

- Potential tariff hikes of 10-12% in 4QFY25-FY26:** GAIL management remains hopeful of a successful tariff-related outcome by FY25 end. We also believe the probability of gas price-related tariff hikes remains high, as PNGRB has considered a gas price of USD12.46/mmbtu for GUJS recently. We anticipate that GAIL could benefit from a 10-12% tariff increase, potentially boosting the company's FY26E PAT by 5%.

Exhibit 1: Transmission to be the major contributor to EBITDA



Source: Company, MOFSL

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

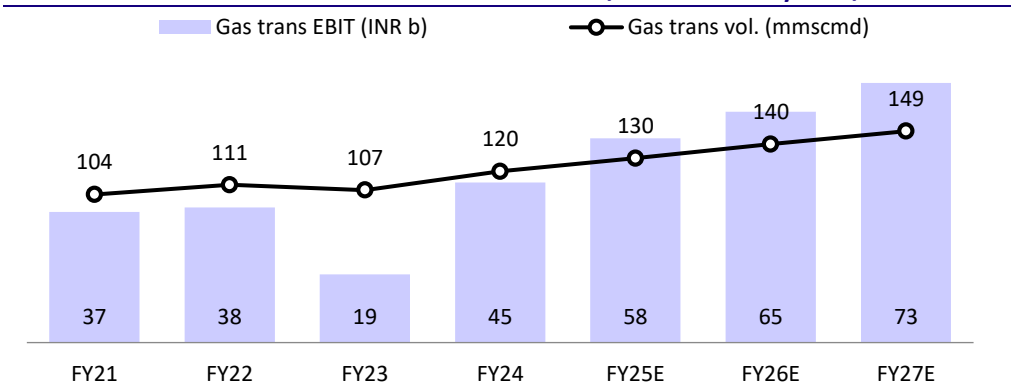
Research Analyst - Rishabh Daga (Rishabh.Daga@MotilalOswal.com) | Preksha Daga (Preksha.Daga@MotilalOswal.com)

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, Bloomberg, Thomson Reuters, Factset and S&P Capital.

- **GAIL has guided for transmission volume at 130/140mmscmd for FY25/26.** This does not include any benefits from the inclusion of natural gas under GST. In 3QFY25 so far, we believe transmission and marketing volumes have largely been in line with 2Q trends, though marketing profit could be under pressure due to high spot prices. In FY26-27, we believe that the refining, power, and CGD sectors will drive the majority of the 20mmscmd increase in volumes.

Exhibit 2: Transmission volumes to reach 140mmscmd/149mmscmd by FY26/FY27



Source: Company, MOFSL

- **Limited direct benefit of natural gas inclusion under the GST regime:** For GAIL, direct benefits from the inclusion of natural gas under the GST framework might be limited to ~INR1.5b-INR2b (as per our estimate). However, competitive natural gas pricing vs. pet coke and other dirtier fuels should boost gas consumption, and thus transmission volumes.
- **Significant positive for GAIL Gas:** The inclusion of natural gas under the GST framework could also be positive for GAIL Gas, for which industrial/commercial volumes account for the bulk of total volumes. Overall GAIL Gas reported FY24 volume of ~6.7mmscmd, with 61% coming from the industrial/commercial segment. We continue to believe that the monetization of CGD business is a key long-term value unlocking catalyst for GAIL.
- **Pipeline completion on track:** The company remains on track to commission five pipelines (capex ~INR130b by 1HFY26), which should provide medium-term volume visibility.

Tax reforms for natural gas crucial for margin stability

- **Inclusion of natural gas in GST:** Based on our interactions with gas utility companies, tax reform for natural gas seems to be a serious agenda for the government this time given the challenges facing the CGD sector after the recent APM de-allocation. However, as per a recent [media article](#), the inclusion of natural gas under the GST framework would not be on the agenda for the upcoming 55th GST Council meeting scheduled for 21st Dec'24.
- **Excise duty relief, even partially, can bolster margins:** We understand the central government could look at removing or reducing excise duty on CNG as a way of relief for the CGD sector. We estimate a complete removal of excise duty could make CNG cheaper by INR7/scm in Delhi, and CGD companies could retain some of these benefits to bolster margins. IGL now has substantial CNG sales (up to 30%) outside Delhi; in states like UP and Rajasthan. Besides the 14% excise duty, there is VAT of 12.5%/10%. So in case of VAT removal, up to 30% of CNG sales will still benefit IGL.

- **APM availability for CNG:** The current APM availability for companies is in the range of ~38-40% for CNG and near 100% for D-PNG. The availability of gas from new wells is not an issue for now, but we do think that a competitive long-term gas sourcing arrangement is critical for margin visibility.
- **DTC bus share down to 5% now for IGL; low-margin business:** The share of DTC buses in overall CNG sales for IGL is only ~5% now and IGL makes less than INR4/kg on these sales (due to discounts of up to INR4/Kg).
- **CNG price hikes inevitable; delaying price hikes impacts network rollout:** Nearly all companies we met expressed an intent to hike prices and substantially offset the impact of the APM de-allocation. CGD players believe that the recent APM de-allocation-related issues, if not resolved, could ultimately lead to a slower expansion of CNG and D-PNG network over time.

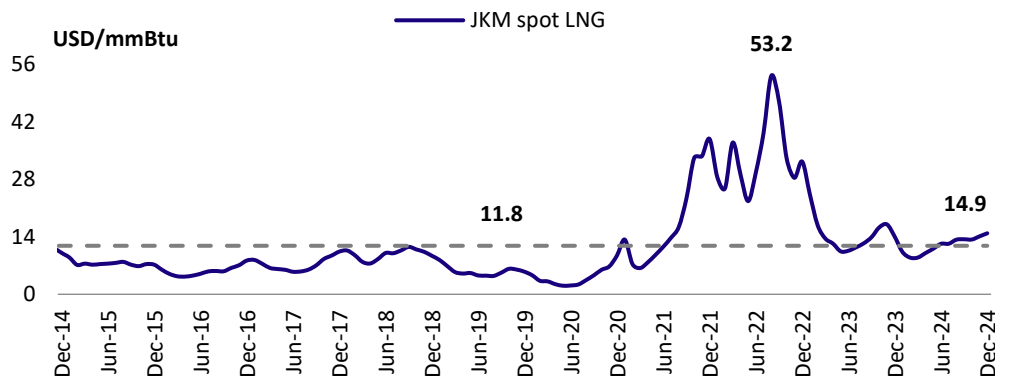
Valuation and view:

- **GAIL:** We reiterate our **BUY rating** on GAIL with a **TP of INR265**. During FY24-27, we estimate a 14% CAGR in PAT driven by:
 - An increase in natural gas transmission volumes to 149mmscmd in FY27 from 120mmscmd in FY24;
 - Substantial improvement in petchem segment's profitability over 2HFY25-FY27 as the new petchem capacity will be operational and spreads are bottoming out;
 - The trading segment's healthy profitability with guided EBIT of at least INR45b accompanied by volume growth.
- Our SoTP-based TP includes:
 - The gas transmission business at 9x FY27E EBITDA of INR93b,
 - LPG transmission business at 8x FY27E EBITDA of INR5b,
 - Gas trading business at 6x FY27E EBITDA of INR62b,
 - Petrochemical business at 7x FY27E EBITDA of INR28b, and
 - LPG business at 6x FY27E EBITDA of INR19b.
 - Adding the value of listed and unlisted investments of INR272b and adjusting FY27E ND of INR151b, we arrive at our revised TP of INR265.
- **MAHGL:** After the twin APM de-allocation, we estimate an INR3.1/scm adverse impact on EBITDA margins without any price hikes. We also believe that a price hike of ~INR5.5-INR6/kg in CNG will be required to offset the impact of APM de-allocations. While an INR2/kg CNG price hike taken by MAHGL recently ([media article](#)) shall partially reduce the adverse impact on margins, we cut our EBITDA/scm margin, leading to a reduction of 10%/11%/11% in FY25E/FY26E/FY27E EPS. Further, if margins are not bolstered (either via price hikes or tax relief), then ultimately the network expansion is likely to suffer. Hence, we reduce our valuation multiple to 15x P/E vs. 16x P/E earlier.
- We expect a 9% CAGR in volume over FY24-27E, driven by multiple initiatives implemented by the company, such as partnering with OEMs to drive conversions of commercial CNG vehicles and providing guaranteed price discounts to new I/C-PNG customers.
- The stock trades at 12x FY26E EPS of INR105. We value it at 15x Dec'26E EPS to arrive at our TP of INR1,750. Reiterate BUY.

Exhibit 3: GAIL EV/EBITDA based SoTP valuation

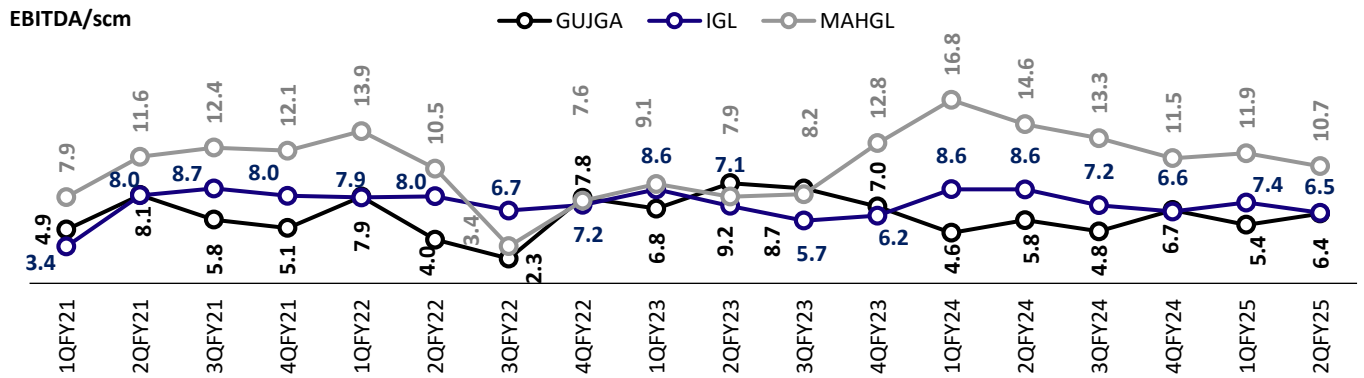
Business	EBITDA (INR b)	Target multiple (x)	Value (INRb)
Gas transmission	93	9	880
LPG transmission	5	8	41
Gas trading	62	6	391
Petrochemicals	28	7	196
LPG	19	6	115
Investments			272
Enterprise value			1,895
Net Debt			151
Implied Equity value			1,744
Value (INR/sh)			265

Exhibit 4: Spot LNG historical price (USD/mmbtu)



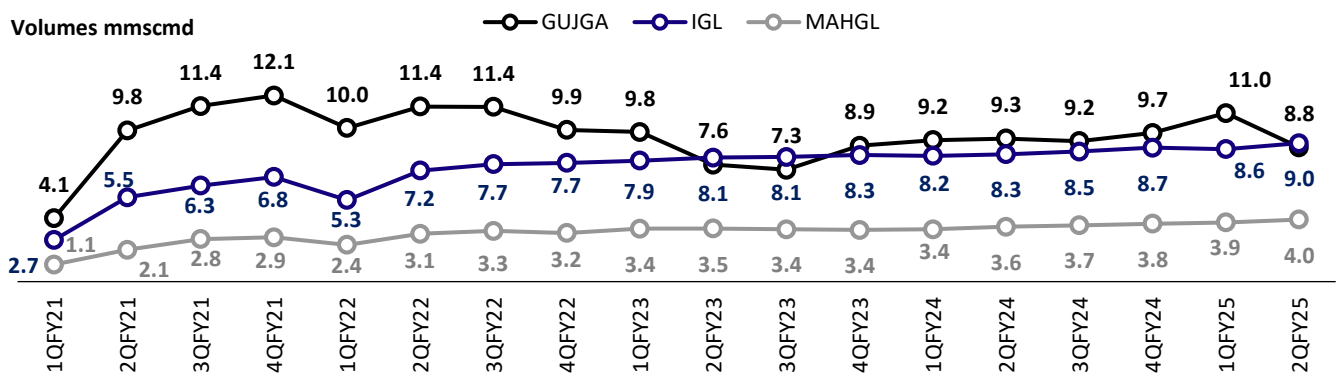
Source: Reuters, MOFSL

Exhibit 5: CGDs EBITDA margin trend (INR/scm)



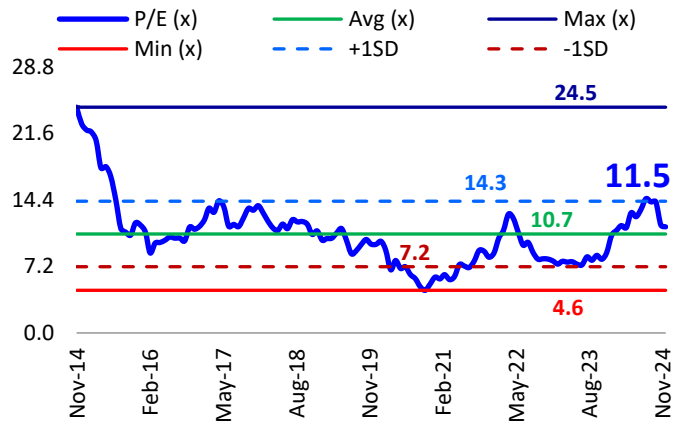
Source: Company, MOFSL

Exhibit 6: CGDs volume trend (mmscmd)



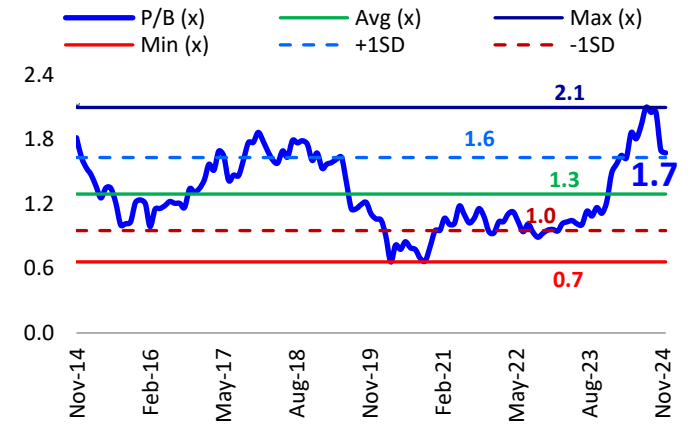
Source: Company, MOFSL

Exhibit 7: GAILs one year forward P/E



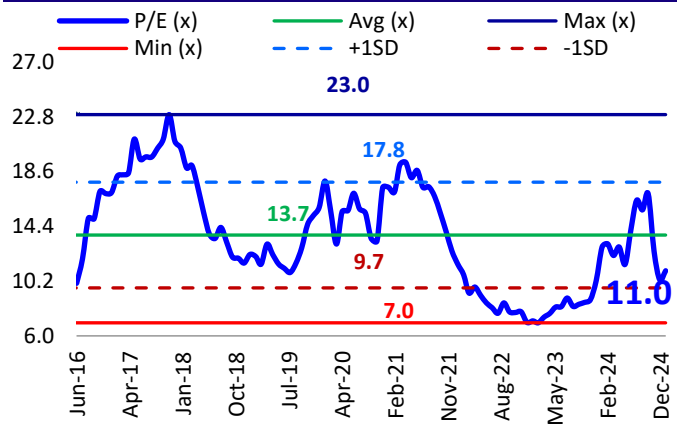
Source: Company, MOFSL

Exhibit 8: GAILs one year forward P/B



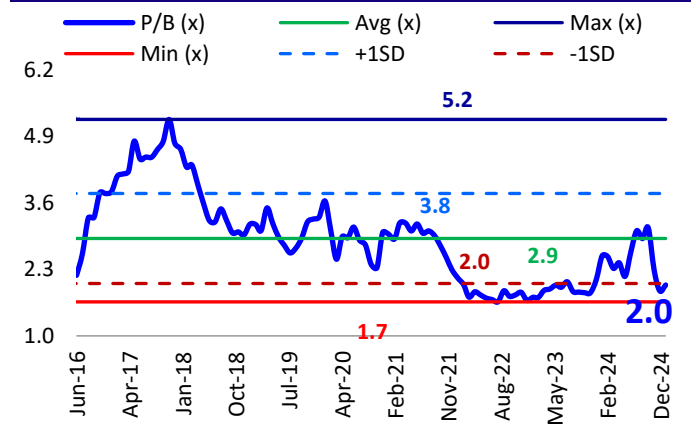
Source: Company, MOFSL

Exhibit 9: MAHGLs one year forward P/E



Source: Company, MOFSL

Exhibit 10: MAHGLs one year forward P/B



Source: Company, MOFSL

Financials and valuations: GAIL (TP: INR265) BUY

Income Statement					(INR b)
Y/E March	FY23	FY24	FY25E	FY26E	FY27E
Net Sales	1,443.0	1,306.4	1,390.2	1,413.2	1,523.8
Change (%)	57.5	-9.5	6.4	1.7	7.8
EBITDA	67.0	134.8	151.3	169.2	191.7
% of Net Sales	4.6	10.3	10.9	12.0	12.6
Depreciation	24.9	33.3	35.2	37.2	39.3
Interest	3.1	7.0	6.3	6.4	7.1
Other Income	26.8	22.8	24.4	26.1	27.9
EO Items (net)	0.0	0.0	0.0	0.0	0.0
PBT	65.8	117.3	134.2	151.7	173.3
Tax	12.8	27.2	29.8	33.6	38.4
Rate (%)	19.5	23.2	22.2	22.2	22.2
Reported PAT	53.0	90.2	104.4	118.0	134.9
Adjusted PAT	53.0	90.2	104.4	118.0	134.9
Change (%)	-48.8	70.1	15.8	13.1	14.2

Balance Sheet					(INR b)
Y/E March	FY23	FY24	FY25E	FY26E	FY27E
Share Capital	65.8	65.8	65.8	65.8	65.8
Reserves	490.8	576.0	638.6	709.3	790.1
Net Worth	556.5	641.8	704.3	775.0	855.8
Loans	143.1	164.1	197.0	216.7	238.3
Deferred Tax	46.6	49.6	49.6	49.6	49.6
Capital Employed	746.3	855.5	950.8	1,041.2	1,143.7
Gross Fixed Assets	703.4	767.8	981.6	1,071.6	1,161.6
Less: Depreciation	280.7	314.0	349.1	386.3	425.6
Net Fixed Assets	422.7	453.8	632.4	685.3	736.0
Capital WIP	136.6	158.6	44.8	44.8	44.8
Investments	148.3	210.9	210.9	210.9	210.9
Current Assets					
Inventory	52.8	52.9	56.3	57.2	61.7
Debtors	114.1	106.5	113.4	115.2	124.3
Cash & Bank Balance	4.0	7.0	41.4	80.1	136.9
Cash	1.7	5.9	40.3	78.9	135.7
Bank Balance	2.3	1.1	1.1	1.1	1.1
Loans/Adv. & Other Assets	82.8	105.5	105.5	105.5	105.5
Current Liab. & Prov.					
Liabilities	198.1	219.8	233.9	237.8	256.4
Provisions	16.9	20.0	20.0	20.0	20.0
Net Current Assets	38.7	32.2	62.7	100.2	152.0
Application of Funds	746.3	855.5	950.8	1,041.2	1,143.7

Financials and valuations: GAIL

Ratios

Y/E March	FY23	FY24	FY25E	FY26E	FY27E
Basic (INR)					
EPS	8.1	13.7	15.9	18.0	20.5
Cash EPS	11.8	18.8	21.2	23.6	26.5
Book Value	93.5	101.8	111.3	122.0	134.3
DPS	4.0	5.5	6.4	7.2	8.2
Payout (incl. dvd tax)	49.6	40.1	40.1	40.1	40.1
Valuation (x)					
P/E	24.3	14.3	12.3	10.9	9.6
Adj. P/E (for investments)	19.3	11.4	9.8	8.7	7.6
Cash P/E	16.5	10.4	9.2	8.3	7.4
EV / EBITDA	14.0	8.3	7.3	6.3	5.4
EV / Sales	0.9	1.0	0.9	0.9	0.8
Price / Book Value	2.1	1.9	1.8	1.6	1.5
Dividend Yield (%)	2.0	2.8	3.3	3.7	4.2
Profitability Ratios (%)					
RoE	9.5	15.0	15.5	16.0	16.5
RoCE	7.9	11.9	12.1	12.4	12.8
RoIC	8.1	16.7	16.0	15.1	16.3
Turnover Ratios					
Debtors (No. of Days)	29	30	30	30	30
Fixed Asset Turnover (x)	1.9	1.5	1.5	1.4	1.3
Leverage Ratio					
Net Debt / Equity (x)	0.2	0.2	0.2	0.2	0.1

Cash Flow Statement

Y/E March	FY22	FY24	FY25E	FY26E	(INR b) FY27E
OP/(Loss) before Tax	65.8	115.5	134.2	151.7	173.3
Depreciation	24.9	33.3	35.2	37.2	39.3
Interest charge	3.1	7.0	6.3	6.4	7.1
Tax paid	-15.2	-27.5	-29.8	-33.6	-38.4
(Inc)/Dec in Wkg. Capital	-30.9	5.5	3.9	1.1	5.1
CF from Op. Activity	28.1	118.5	149.8	162.7	186.3
(Inc)/Dec in FA & CWIP	-73.4	-70.4	-100.0	-90.0	-90.0
Free Cash Flow	-45.3	48.1	49.8	72.7	96.3
(Pur)/Sale of Investments	-10.6	-9.9	0.0	0.0	0.0
CF from Inv. Activity	-65.5	-80.0	-100.0	-90.0	-90.0
Interest charge	-5.8	-10.9	-6.3	-6.4	-7.1
Inc / (Dec) in Debt	79.6	21.0	32.8	19.7	21.7
Dividends Paid	-30.7	-36.2	-41.9	-47.3	-54.1
CF from Fin. Activity	25.5	-34.3	-15.4	-34.1	-39.5
Inc / (Dec) in Cash	-11.9	4.1	34.4	38.6	56.8
Add: Opening Balance	13.7	1.7	5.9	40.3	78.9
Closing Balance	1.7	5.9	40.3	78.9	135.7

Financials and valuations: MAHGL (TP: INR1750) BUY

Standalone - Income Statement

	(INR m)				
Y/E March	FY23	FY24	FY25E	FY26E	FY27E
Total Income from Operations	62,993	62,445	57,604	60,465	64,823
<i>Change (%)</i>	76.9	-0.9	-7.8	5.0	7.2
EBITDA	11,842	18,426	14,965	16,070	17,195
<i>Margin (%)</i>	18.8	29.5	26.0	26.6	26.5
Depreciation	2,311	2,631	2,966	3,415	3,949
EBIT	9,531	15,795	11,999	12,656	13,246
Int. and Finance Charges	94	110	329	667	667
Other Income	1,119	1,822	1,406	1,379	1,401
PBT bef. EO Exp.	10,555	17,507	13,076	13,368	13,980
PBT after EO Exp.	10,555	17,507	13,076	13,368	13,980
Total Tax	2,655	4,437	3,291	3,365	3,519
<i>Tax Rate (%)</i>	25.2	25.3	25.2	25.2	25.2
Reported PAT	7,901	13,070	9,785	10,003	10,462
Adjusted PAT	7,901	13,070	9,785	10,003	10,462
<i>Change (%)</i>	32.3	65.4	-25.1	2.2	4.6
<i>Margin (%)</i>	12.5	20.9	17.0	16.5	16.1

Standalone - Balance Sheet

	(INR m)				
Y/E March	FY23	FY24	FY25E	FY26E	FY27E
Equity Share Capital	988	988	988	988	988
Total Reserves	40,354	50,441	56,312	62,314	68,591
Net Worth	41,342	51,429	57,300	63,302	69,579
Total Loans	208	231	1,231	1,731	1,231
Deferred Tax Liabilities	2,086	2,441	2,441	2,441	2,441
Capital Employed	43,636	54,101	60,972	67,474	73,251
Gross Block	40,096	47,620	58,315	68,154	78,121
Less: Accum. Deprn.	11,727	14,358	17,324	20,739	24,688
Net Fixed Assets	28,369	33,262	40,991	47,415	53,433
Capital WIP	7,086	7,743	6,049	6,210	6,242
Total Investments	13,098	16,360	16,360	16,360	16,360
Rights to use assets	1,888	2,167	2,167	2,167	2,167
Curr. Assets, Loans&Adv.	9,882	12,728	10,405	11,044	11,906
Inventory	338	398	282	294	315
Account Receivables	2,940	2,806	2,689	2,822	3,026
Cash and Bank Balance	2,279	3,985	3,480	3,778	4,115
Cash	1,179	1,027	522	820	1,157
Bank Balance	1,100	2,958	2,958	2,958	2,958
Loans and Advances	4,324	5,539	3,954	4,151	4,450
Curr. Liability & Prov.	16,687	18,159	14,999	15,721	16,856
Account Payables	3,222	3,342	2,686	2,796	3,000
Other Current Liabilities	12,967	14,224	11,858	12,447	13,344
Provisions	498	593	455	478	512
Net Current Assets	-6,806	-5,431	-4,594	-4,677	-4,951
Appl. of Funds	43,636	54,101	60,972	67,474	73,251

Financials and valuations: MAHGL

Ratios

Y/E March	FY23	FY24	FY25E	FY26E	FY27E
Basic (INR)					
EPS	80.0	132.3	99.1	101.3	105.9
Cash EPS	103.4	159.0	129.1	135.8	145.9
BV/Share	418.5	520.6	580.1	640.8	704.4
DPS	26.0	52.9	39.6	40.5	42.4
Payout (%)	32.5	40.0	40.0	40.0	40.0
Valuation (x)					
P/E	15.8	9.6	12.8	12.5	11.9
Cash P/E	12.2	8.0	9.8	9.3	8.7
P/BV	3.0	2.4	2.2	2.0	1.8
EV/Sales	2.0	1.9	2.1	2.0	1.9
EV/EBITDA	10.4	6.6	8.2	7.6	7.1
Dividend Yield (%)	2.1	4.2	3.1	3.2	3.3
FCF per share	26.0	80.2	13.5	31.2	43.4
Return Ratios (%)					
RoE	20.4	28.2	18.0	16.6	15.7
RoCE	20.5	28.2	18.2	17.0	16.1
RoIC	37.9	50.0	29.4	24.9	22.6
Working Capital Ratios					
Fixed Asset Turnover (x)	1.6	1.3	1.0	0.9	0.8
Asset Turnover (x)	1.4	1.2	0.9	0.9	0.9
Inventory (Days)	2	2	2	2	2
Debtor (Days)	17	16	17	17	17
Creditor (Days)	19	20	17	17	17
Leverage Ratio (x)					
Current Ratio	0.6	0.7	0.7	0.7	0.7
Net Debt/Equity	-0.1	-0.1	0.0	0.0	0.0

Standalone - Cash Flow Statement

Y/E March	FY23	FY24	FY25E	FY26E	FY27E
(INR m)					
OP/(Loss) before Tax	10,555	17,328	13,076	13,368	13,980
Depreciation	2,311	2,736	2,966	3,415	3,949
Direct Taxes Paid	-2,638	-4,240	-3,291	-3,365	-3,519
(Inc)/Dec in WC	134	907	-1,342	381	611
Others	-764	-1,215	-1,406	-1,379	-1,401
CF from Operations	9,693	15,631	10,332	13,086	14,288
(Inc)/Dec in FA	-7,127	-7,709	-9,000	-10,000	-10,000
Free Cash Flow	2,566	7,922	1,332	3,086	4,288
(Pur)/Sale of Investments	-1,748	-65,334	0	0	0
Others	2,384	60,375	1,406	1,379	1,401
CF from Investments	-6,491	-12,668	-7,594	-8,621	-8,599
Dividend Paid	-2,518	-2,766	-3,914	-4,001	-4,185
CF from Fin. Activity	-2,848	-3,116	-3,243	-4,168	-5,351
Inc/Dec of Cash	354	-152	-505	297	338
Opening Balance	825	1,179	1,027	522	820
Closing Balance	1,179	1,027	522	820	1,157

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 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. 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 Ltd. are available on the website at <http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf>

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

MOFSL, its associates, Research Analyst or their relatives may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst or their relatives may have 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. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may have any other potential conflict of interests at the time of publication of the research report or at the time of public appearance, 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.

In the past 12 months, MOFSL or any of its associates may have:

- received any compensation/other benefits from the subject company of this report
- managed or co-managed public offering of securities from subject company of this research report,
- received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.

- MOFSL and its associates have not received any compensation or other benefits from the subject company or third party in connection with the research report.
- Subject Company may have been a client of MOFSL or its associates during twelve months preceding the date of distribution of the research report.
- Research Analyst may have served as director/officer/employee in the subject company.
- MOFSL and research analyst may engage in market making activity for the subject company.

MOFSL and its associate company(ies), and Research Analyst and their relatives from time to time may have:

- a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein.
- 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.

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. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the 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.

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.

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.

A graph of daily closing prices of securities is available at www.nseindia.com, 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 Financial Services Limited (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. 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 of Singapore. Accordingly, if a Singapore person is not, or ceases to be, such an investor, they must immediately discontinue any use of this Report and inform MOCMSPL.

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, 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.