

Estimate changes

TP change

Rating change



Bloomberg	DN IN
Equity Shares (m)	136
M.Cap.(INRb)/(USDb)	263.7 / 3.2
52-Week Range (INR)	2356 / 1682
1, 6, 12 Rel. Per (%)	2/-9/-15
12M Avg Val (INR M)	1293

Financials & Valuations (INR b)

Y/E March	FY23	FY24E	FY25E
Sales	79.7	79.9	85.1
EBITDA	12.9	17.4	19.0
PAT	8.5	11.2	12.1
EPS (INR)	62.5	82.5	88.8
EPS Gr. (%)	-20.1	32.0	7.6
BV/Sh.(INR)	299.9	372.4	450.5

Ratios

Net D:E	0.0	0.0	-0.0
RoE (%)	22.9	24.5	21.6
RoCE (%)	21.6	23.9	21.2
Payout (%)	12.0	12.0	12.0

Valuations

P/E (x)	30.9	23.4	21.7
P/BV (x)	6.4	5.2	4.3
EV/EBITDA (x)	20.4	15.1	13.8
Div. Yield (%)	0.4	0.5	0.6
FCF Yield (%)	1.1	0.7	0.7

Shareholding pattern (%)

As On	Mar-23	Dec-22	Mar-22
Promoter	49.1	45.7	45.7
DII	15.1	13.8	10.0
FII	7.7	8.7	8.8
Others	28.1	31.8	35.5

FII Includes depository receipts

CMP: INR1,934
TP: INR1,775 (-8%)
Neutral

Project delays pose a threat to aggressive capex plans

- DN (Deepak Nitrite) reported in-line performance, after adjusting for a government incentive income that was recognized in 4QFY23. The company stated that this incentive is being received in DPL and will persist for the next five to six years.
- EBITDA was at INR3.5b, while EBITDA margin was at 17.7% - still at multi-quarter lows. Despite the sequential growth in the margin of the Phenolic division, it declined by 50bp YoY. The AI segment also experienced a YoY decline of 860bp.
- The company has announced project delays with respect to its MIBK/ MIBC plants, which would now be commissioned in 1QFY25 (earlier commissioning in 4QFY24), and the debottlenecking of the Phenol plant was also delayed by a quarter to 1QFY24 (earlier commissioning by 4QFY23). DN would also commission BTC/ BTF products in the Photo Chlorination and Fluorination (as announced earlier) chemistries by 3QFY24.
- The management expects strong performance in the AI segment as the global supply chain shifts to India, despite input prices remaining at elevated levels. The company expects to double its revenue in the next four years. We expect a revenue/ EBITDA/ PAT CAGR of 7%/ 6%/ 4% for FY23-25. **Subsequently, given the underperformance in FY23, we cut our revenue/ EBITDA/ EPS estimates by 6%/ 5%/ 7% for FY24 and by 9%/ 4%/ 7% for FY25.**
- The stock trades at 22x FY25E EPS of INR89 and at 14x FY25E EV/EBITDA. We reiterate our Neutral rating, as DN's focus remains on commodities rather than specialty or complex commodities, many of which are low-margin products. Valuing the stock at 20x FY25E EPS, we arrive at a TP of INR1,775.

In-line results after adjusting for government incentive income; margins still at multi-quarter lows

- Revenue stood at INR19.6b (up 5% YoY). **This includes a government incentive income in one of the subsidiary companies, amounting to INR173m.**
- Gross margin stood at 34.8% (down 340bp v/s 4QFY22).
- EBITDA stood at INR3.5b (our est. of INR3.3b, down 15% YoY). **Adj. EBITDA was in line at INR3.3b.**
- ✓ EBITDAM stood at 17.7% (v/s 21.9% in 4QFY22) - **still at multi-quarter lows.**
- **Margin stood at 17% after adjusting for govt. incentive income.**
- PAT stood at INR2.3b (our est. of INR2.2b, down 12% YoY) with **Adj. PAT in line at INR2.1b.**

Segmental details

- **Phenolics EBIT margin stood at 15.1%, with EBIT at INR1.8b, while Advanced Intermediates EBIT margin stood at 17.1% (from 25.7% in 4QFY22), with EBIT at INR1.4b.**
- The revenue mix of Phenolics stood at 59% in 4QFY23, with Advanced Intermediates share at 41%.

Swarnendu Bhushan – Research Analyst (Swarnendu.Bhushan@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, Bloomberg, Thomson Reuters, Factset and S&P Capital.

- The EBIT mix for Advanced Intermediates stood at 44%, down from 54% in 3QFY23. On the other hand, the contribution from the Phenolics division stood at 56% (from 46% in 3QFY23).
- For FY23, revenue stood at INR79.7b (up 17%YoY), EBITDA at INR12.9b (down 19% YoY), and PAT at INR8.5b (down 20% YoY)
- **EBITDAM contracted to 16.2% (down 7.4pp YoY)**
- Revenue for the AI segment stood at INR30.3b (up 19% YoY) and INR49.7b (up 16% YoY) for the Phenolics segment.
- EBIT stood at INR5.6b (down 11% YoY) for the AI segment and INR5.9b (down 31% YoY) for the Phenolics segment.
- **EBITM stood at 18.3% (down 6.2pp YoY) for the AI segment, while it stood at 12% (down 8.2pp YoY) for the Phenolics business**
- The company has declared a final dividend of INR7.5 for FY23.

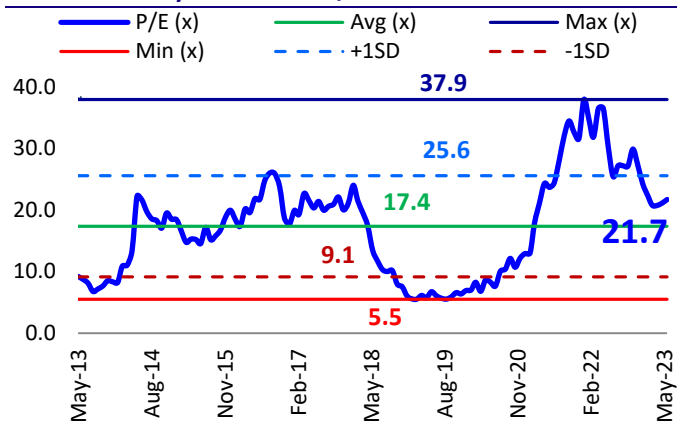
Valuation and view

- The company aims to become the largest player in Solvents, with a play on import substitution. It has already announced its foray into MIBK (40ktpa), MIBC (8ktpa), and Polycarbonate compounding.
- Despite a capex of INR25b over the next three years, DN is expected to turn net cash positive by FY25 with record an FCF generation of INR3.6b over FY24-25. Return ratios are expected to be at 21-25%, significantly lower than that of FY22.
- The company is aggressively pursuing both backward and forward integration. However, as the company's entire product portfolio consists of commodities, its current valuation appears rich. We reiterate our Neutral rating with a TP of INR1,775, valuing DN at 20x FY25E EPS of INR89.

Consolidated - Quarterly Snapshot

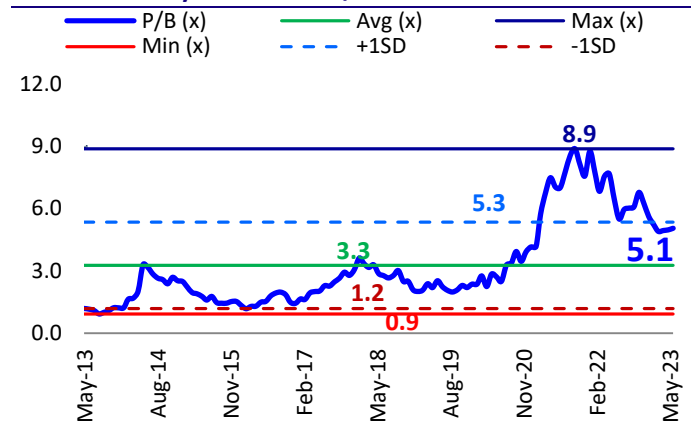
Y/E March	FY22				FY23				FY22	FY23	FY23	Var. (%)
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			4QE	
Gross Sales	15,262	16,814	17,223	18,724	20,580	19,617	19,911	19,614	68,022	79,721	20,200	-3%
YoY Change (%)	126.3	70.3	39.5	28.0	34.8	16.7	15.6	4.8	56.0	17.2	7.9	
Gross Margin (%)	46.3%	37.4%	37.0%	38.2%	33.9%	30.2%	32.8%	34.8%	39.5%	32.9%	30.4%	4.4%
EBITDA	4,515	3,865	3,519	4,103	3,560	2,709	3,146	3,480	16,002	12,894	3,334	4%
Margin (%)	29.6	23.0	20.4	21.9	17.3	13.8	15.8	17.7	23.5	16.2	16.5	1.2
Depreciation	436	441	455	446	419	424	411	409	1,777	1,663	421	
Interest	109	92	68	71	86	59	58	45	340	248	56	
Other Income	83	84	258	35	96	120	134	126	460	476	92	
PBT	4,053	3,417	3,253	3,622	3,151	2,346	2,810	3,152	14,345	11,459	2,948	7%
Tax	1,026	873	829	950	805	601	720	813	3,678	2,939	744	
Rate (%)	25.3	25.6	25.5	26.2	25.5	25.6	25.6	25.8	25.6	25.6	25.2	
Reported PAT	3,026	2,543	2,425	2,672	2,346	1,745	2,091	2,339	10,666	8,520	2,204	6%
YoY Change (%)	205.8	49.4	12.0	-7.9	-22.5	-31.4	-13.8	-12.5	37.5	-20.1	-17.5	
Margin (%)	19.8	15.1	14.1	14.3	11.4	8.9	10.5	11.9	15.7	10.7	10.9	1.0
Segmental Revenue (INR m)												
Advanced Intermediates	5,491	5,697	6,892	7,502	7,300	6,853	8,178	8,005	25,582	30,336	7,576	6%
Phenolic	9,990	11,370	10,367	11,284	13,349	12,841	11,816	11,699	43,011	49,705	12,394	-6%
Segmental EBIT (INR m)												
Advanced Intermediates	1,546	1,322	1,470	1,928	1,327	1,384	1,475	1,365	6,266	5,551	1,387	-2%
Phenolic	2,873	2,204	1,836	1,759	1,877	1,027	1,270	1,770	8,671	5,945	1,394	27%
Segmental EBIT Margin (%)												
Advanced Intermediates	28.2%	23.2%	21.3%	25.7%	18.2%	20.2%	18.0%	17.1%	24.5%	18.3%	18.3%	-1.3%
Phenolic	28.8%	19.4%	17.7%	15.6%	14.1%	8.0%	10.7%	15.1%	20.2%	12.0%	11.2%	3.9%

Exhibit 1: One-year forward P/E



Source: Company, MOSL

Exhibit 2: One-year forward P/B



Source: Company, MOSL



Highlights from the conference call

Operational performance

- Healthy demand from end-user industries seen in FY23.
- AI demand remained good from end-user industries.
- The management expects strong performance in the AI segment as the company shifts the supply chain to India
- New product introductions would drive growth in the coming years
- Input prices remain at elevated levels
- DPL surged because of better pricing and plant efficiency
- Highest-ever quarterly domestic sales recorded in 4QFY23
- Healthy demand and improved product acceptance seen in Phenolics
- The company received INR112m against insurance claim for damages caused by a fire in Nandesari plant in 4QFY23 and INR138m in Apr'23
- The company is currently operating its plant at full capacity and plans to expand it further while also venturing downstream.
- The company has piloted various products, which have been approved by customers and is in advanced discussions for supplying these downstream products
- End-users are currently showing a decline in demand for dyes and pigments
- There is increased demand from Oil & gas, explosives, Personal Care, Food, Rubber and infrastructure
- Pharma and agro are neutral with regards to volume
- Revenue has started pivoting back to India to some extent although demand from export market also remains robust
- An oversupply of certain products is being observed due to increased production from China.
- However, China is not a threat for phenol and acetone business in India. China has never been an exporter of phenol as all its production is consumed domestically.
- In 3QFY23, the margin spreads for phenol were adversely impacted due to a feedstock supplier shutting down its plant for an extended period. As a result, the company had to purchase Cumene from international markets
- These challenges did not occur in 4Q, resulting in an improvement in phenol spread.

Outlook

- It is expected that DNL's performance in FY24 will be similar to its performance in FY22.
- Higher productivity and production is expected in FY24 and the company is confident of catering to higher demand without its losing market share
- **Government incentive income** is a recurring item for setting up the project and is likely to persist for the next five to six years.
- The price of Ammonia is expected to be remain subdued in the near term due to upcoming capacities and fertilizer inventory build-up
- The company expects to double revenue in the next four years.

Project and capex updates

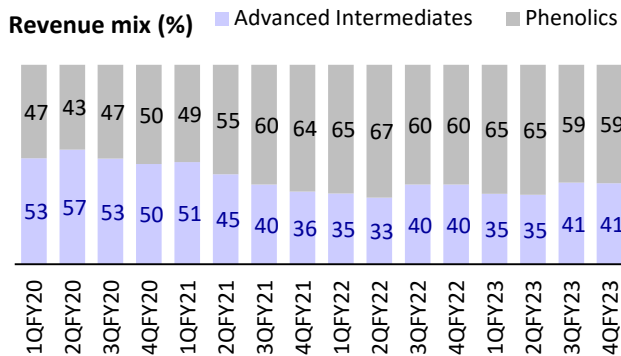
- The company has planned a capex of INR25b over the next two years, and the payback period is expected to be faster than in the previous capex cycles.
- The debottlenecking of the Phenol plant took place in 1QFY23
- Implementation of Advance Process Control project in DPL has been approved by the board and is to be commissioned in 2QFY24
- The successful commissioning of the SAC unit would contribute to the sustainability of operations in Nandesari
- The Nandesari plant is running at full operations, other plants are also running at higher utilization.
- Photo chlorination and Fluorination are expected to be completed in 3QFY24 (BTC/ BTF) with Acid plant to be completed in 4QFY24.
- MIBK (40ktpa)/ MIBC (8ktpa) plant is expected to be completed in 1QFY25 (earlier it was 4QFY24).
- Delayed due to delay in equipment sourcing
- Expect the entire volume to be consumed in the domestic market, to capture 100% market share of the domestic market
- Would try for export markets as well
- To be commissioned together
- PC compounding to be commissioned in the next 18 months

Other Highlights

- India remains the most expensive buyer of Ammonia, but prices have decreased since their peak last year
- In a stable year, Sodium Nitrate and associated nitrates are expected to have a volume growth of 15%
- After debottlenecking the current capacity from 200ktpa to 300ktpa, the company will require a new Phenol plant.
- An investment of INR1b was necessary to increase the capacity from 200ktpa to 250ktpa through debottlenecking.

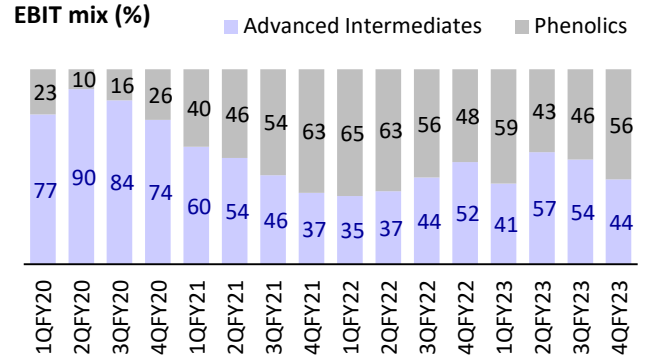
4QFY23 in charts

Exhibit 3: Contribution of Phenolics in total revenue stood steady at 59% in 4QFY23 QoQ...



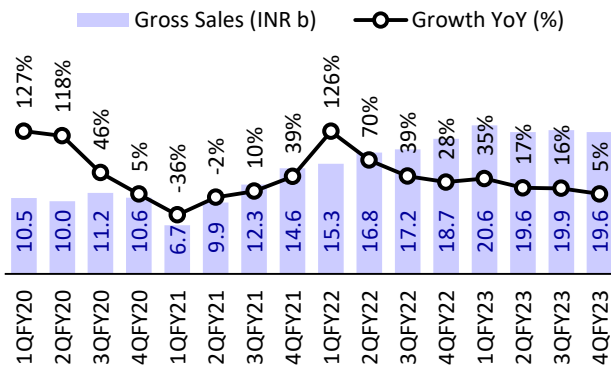
Source: Company, MOFSL

Exhibit 4: ...while Phenolics contribution to EBIT mix increased to 56% from 46% in 4QFY23



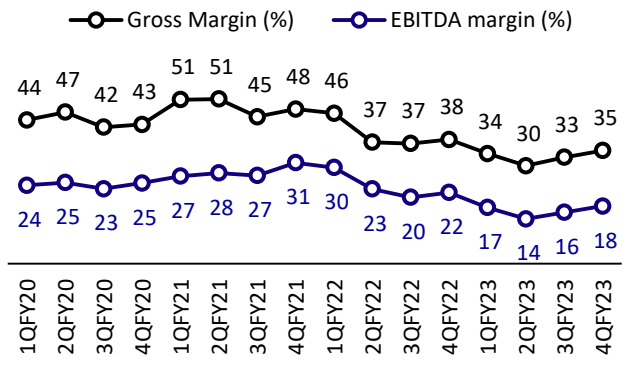
Source: Company, MOFSL

Exhibit 5: Sales declined 1% QoQ, while it rose 5% YoY



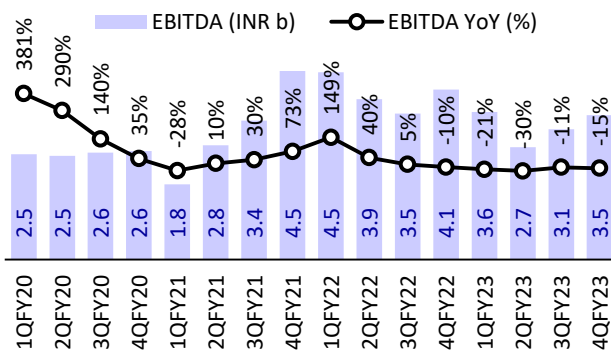
Source: Company, MOFSL

Exhibit 6: Margins declined YoY



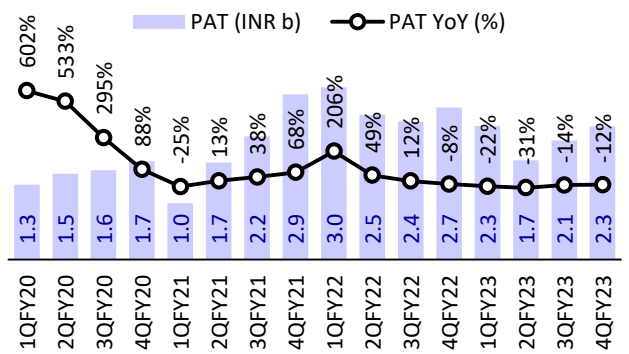
Source: Company, MOFSL

Exhibit 7: EBITDA declined 15% YoY (margin at 17.7%)

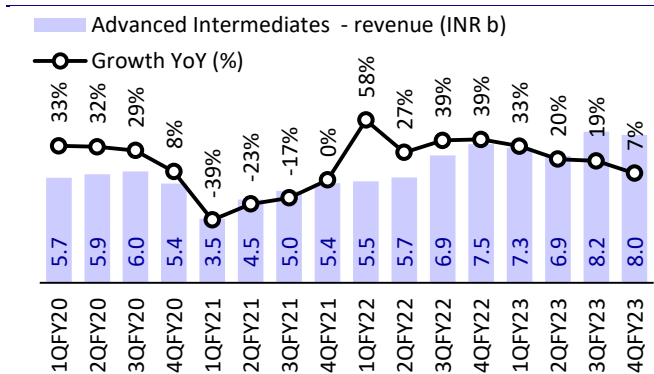


Source: Company, MOFSL

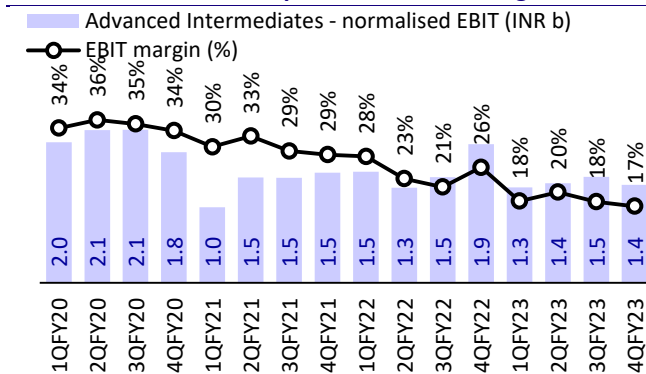
Exhibit 8: PAT declined 12% YoY (margin at 11.9%)



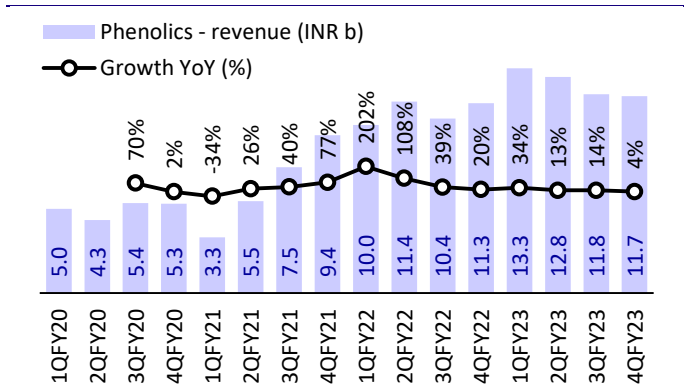
Source: Company, MOFSL

Exhibit 9: Revenue from Advanced Intermediates declined 2% QoQ...

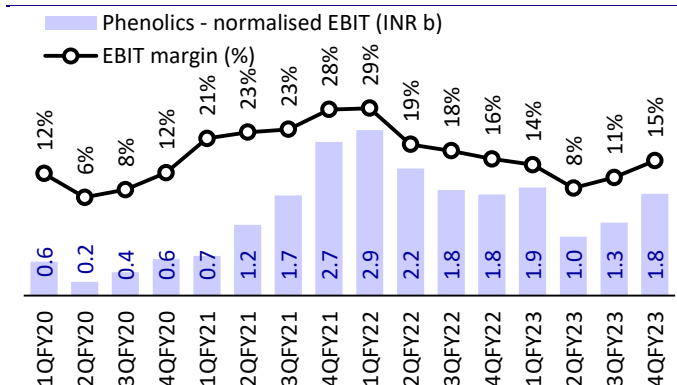
Source: Company, MOFSL

Exhibit 10: ...with a 100bp decline in EBIT margin

Source: Company, MOFSL

Exhibit 11: Revenue for Deepak Phenolic declined 1% QoQ...

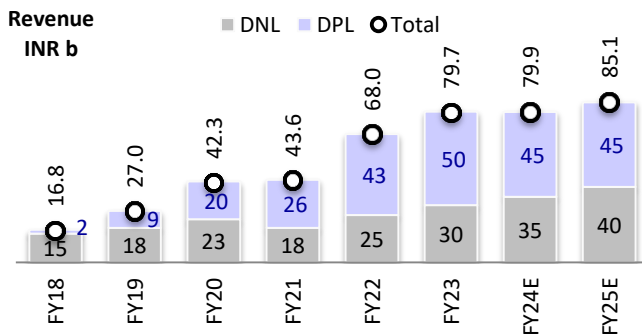
Source: Company, MOFSL

Exhibit 12: ...with EBIT margin at 15.1% (down 50bp YoY)

Source: Company, MOFSL

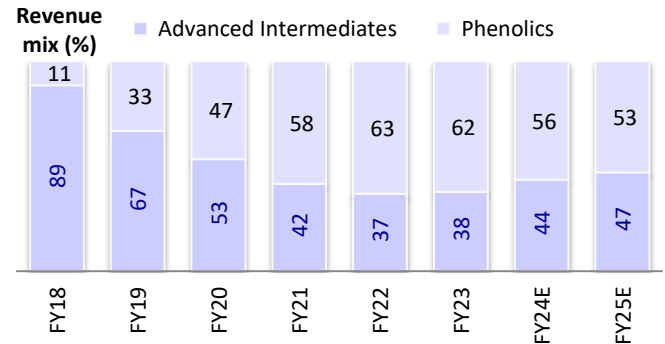
Financial story in charts

Exhibit 13: Revenue growth peaked as product prices in DPL normalizes going forward...



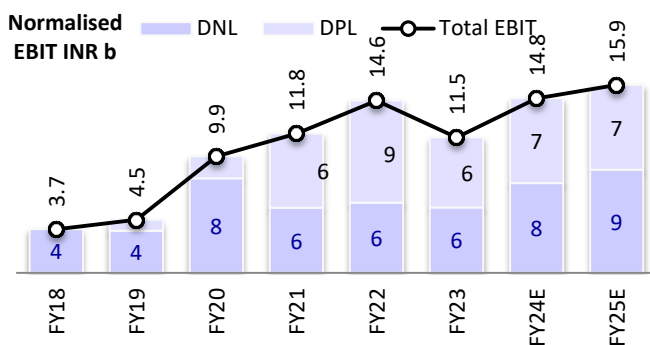
Source: MOFSL

Exhibit 14: ...resulting in a lower contribution from DPL than the previous three years in the total revenue mix



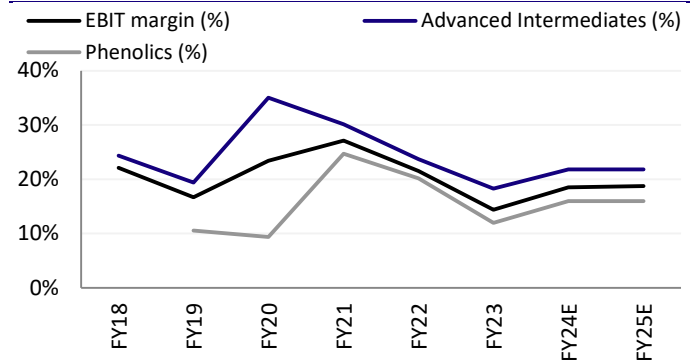
Source: Company, MOFSL

Exhibit 15: Expect normalized EBIT margin to stabilize at ~19%



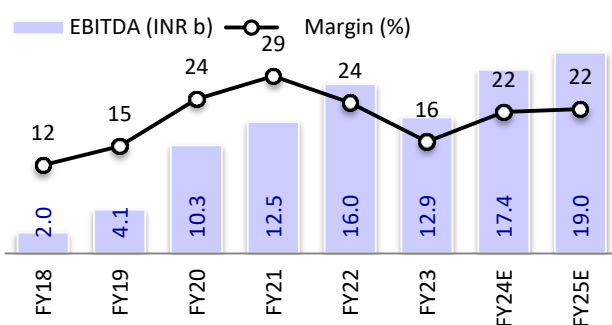
Source: Company, MOFSL

Exhibit 16: ...with Advanced Intermediates still enjoying a higher EBIT margin (estimate ~22%)



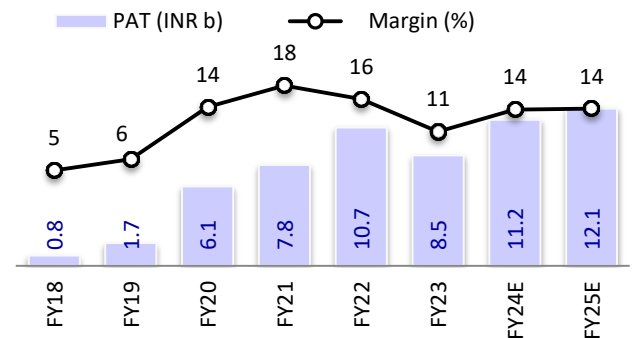
Source: Company, MOFSL

Exhibit 17: EBITDA margin to normalize from FY22 levels



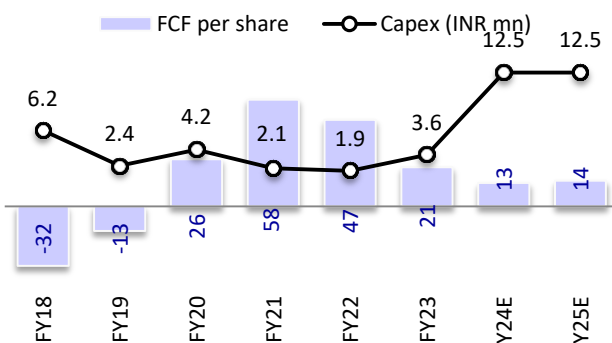
Source: Company, MOFSL

Exhibit 18: Expect ~4% PAT CAGR over FY23-25



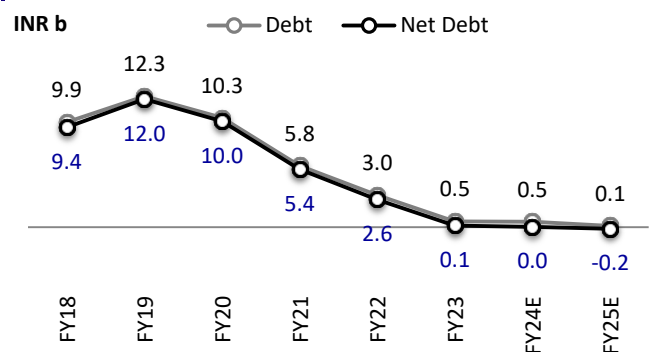
Source: Company, MOFSL

Exhibit 19: DN to incur ~INR25b on capex over FY24-25



Source: Company, MOFSL

Exhibit 20: Debt profile of DN



Source: Company, MOFSL

Financials and valuations

Consolidated - Income Statement

	(INR m)							
Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Total Income from Operations	16,762	26,999	42,297	43,598	68,022	79,721	79,886	85,119
Change (%)	15.2	61.1	56.7	3.1	56.0	17.2	0.2	6.6
Gross Margin (%)	38.0	39.0	43.9	48.1	39.5	32.9	37.4	38.4
EBITDA	1,963	4,139	10,258	12,470	16,036	12,894	17,406	19,025
Margin (%)	11.7	15.3	24.3	28.6	23.6	16.2	21.8	22.4
Depreciation	526	778	1,397	1,526	1,777	1,663	2,604	3,079
EBIT	1,437	3,361	8,861	10,944	14,259	11,231	14,802	15,946
Int. and Finance Charges	451	832	1,149	742	340	248	250	252
Other Income	123	151	352	215	426	476	479	485
PBT bef. EO Exp.	1,109	2,680	8,064	10,417	14,345	11,459	15,032	16,179
EO Items	0	0	0	0	0	0	0	0
PBT after EO Exp.	1,109	2,680	8,064	10,417	14,345	11,459	15,032	16,179
Total Tax	318	943	1,954	2,659	3,678	2,939	3,783	4,072
Tax Rate (%)	28.7	35.2	24.2	25.5	25.6	25.6	25.2	25.2
Reported PAT	790	1,737	6,110	7,758	10,666	8,520	11,248	12,107
Adjusted PAT	790	1,737	6,110	7,758	10,666	8,520	11,248	12,107
Change (%)	72.4	119.8	251.9	27.0	37.5	-20.1	32.0	7.6
Margin (%)	4.7	6.4	14.4	17.8	15.7	10.7	14.1	14.2

Consolidated - Balance Sheet

	(INR m)							
Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Equity Share Capital	273	273	273	273	273	273	273	273
Total Reserves	8,949	10,443	15,446	23,194	33,112	40,627	50,524	61,177
Net Worth	9,221	10,716	15,719	23,467	33,384	40,900	50,797	61,450
Total Loans	9,866	12,286	10,279	5,775	3,007	545	518	129
Deferred Tax Liabilities	454	775	796	1,078	1,229	1,566	1,566	1,566
Capital Employed	19,541	23,776	26,794	30,320	37,620	43,011	52,881	63,146
Gross Block	6,403	17,749	20,460	22,441	25,263	26,705	39,205	51,705
Less: Accum. Deprn.	528	743	2,140	3,666	5,443	7,106	9,710	12,789
Net Fixed Assets	5,875	17,006	18,320	18,774	19,820	19,599	29,495	38,916
Capital WIP	9,545	339	1,723	2,068	1,037	2,826	2,826	2,826
Total Investments	318	24	24	1,893	4,390	3,794	3,794	3,794
Curr. Assets, Loans, and Adv.	10,167	11,910	12,019	12,868	19,057	25,069	24,616	25,926
Inventory	3,272	4,107	3,945	3,827	5,846	8,931	8,350	8,833
Account Receivables	4,118	5,750	6,127	7,563	11,291	13,095	13,122	13,982
Cash and Bank Balance	482	258	314	334	418	400	495	289
Cash	94	30	21	89	229	376	472	266
Bank Balance	388	228	293	245	189	23	23	23
Loans and Advances	2,296	1,795	1,633	1,144	1,503	2,644	2,649	2,823
Curr. Liability and Prov.	6,364	5,502	5,292	5,283	6,684	8,276	7,849	8,316
Account Payables	5,953	4,724	3,643	4,367	5,117	6,618	6,187	6,545
Other Current Liabilities	280	587	1,385	640	1,272	1,215	1,218	1,298
Provisions	132	191	264	276	296	443	444	473
Net Current Assets	3,803	6,408	6,727	7,585	12,373	16,793	16,767	17,610
Appl. of Funds	19,541	23,776	26,794	30,320	37,620	43,011	52,881	63,146

Financials and valuations

Ratios

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Basic (INR)								
EPS	5.8	12.7	44.8	56.9	78.2	62.5	82.5	88.8
EPS Growth (%)	72%	120%	252%	27%	37%	-20%	32%	8%
Cash EPS	9.6	18.4	55.0	68.1	91.2	74.7	101.6	111.3
BV/Share	67.6	78.6	115.2	172.0	244.8	299.9	372.4	450.5
DPS	1.3	6.5	4.5	5.5	7.0	7.5	9.9	10.7
Payout (%)	27.0	61.6	12.1	9.7	9.0	12.0	12.0	12.0
Valuation (x)								
P/E	332.8	151.4	43.0	33.9	24.7	30.9	23.4	21.7
Cash P/E	199.8	104.6	35.0	28.3	21.1	25.8	19.0	17.3
P/BV	28.5	24.5	16.7	11.2	7.9	6.4	5.2	4.3
EV/Sales	16.2	10.2	6.5	6.2	3.9	3.3	3.3	3.1
EV/EBITDA	138.7	66.4	26.6	21.5	16.6	20.4	15.1	13.8
Dividend Yield (%)	0.1	0.3	0.2	0.3	0.4	0.4	0.5	0.6
FCF per share	-32.1	-13.3	25.6	57.8	46.8	21.3	12.6	13.8
Return Ratios (%)								
RoE	9.7	17.4	46.2	39.6	37.5	22.9	24.5	21.6
RoCE	6.5	10.5	27.6	29.1	32.1	21.6	23.9	21.2
RoIC	10.7	13.5	28.0	32.1	36.7	24.6	27.1	23.4
Working Capital Ratios								
Fixed Asset Turnover (x)	2.9	2.4	2.4	2.4	3.5	4.0	3.3	2.5
Asset Turnover (x)	0.9	1.1	1.6	1.4	1.8	1.9	1.5	1.3
Inventory (Days)	71	56	34	32	31	41	38	38
Debtor (Days)	90	78	53	63	61	60	60	60
Creditor (Days)	130	64	31	37	27	30	28	28
Leverage Ratio (x)								
Current Ratio	1.6	2.2	2.3	2.4	2.9	3.0	3.1	3.1
Interest Coverage Ratio	3.2	4.0	7.7	14.7	41.9	45.3	59.3	63.2
Net Debt/Equity ratio	1.0	1.1	0.6	0.2	0.1	0.0	0.0	0.0

Consolidated - Cash Flow Statement

(INR m)

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
OP/(Loss) before Tax	1,109	2,680	8,064	10,417	14,345	11,459	15,032	16,179
Depreciation	528	778	1,397	1,526	1,777	1,663	2,604	3,079
Others	481	829	1,262	852	295	63	250	252
Direct Taxes Paid	-279	-561	-1,985	-2,365	-3,535	-2,600	-3,783	-4,072
(Inc.)/Dec. in WC	-9	-3,123	-1,092	-412	-4,643	-4,085	121	-1,049
CF from Operations	1,830	603	7,647	10,019	8,239	6,499	14,223	14,388
(Inc.)/Dec. in FA	-6,206	-2,410	-4,160	-2,140	-1,862	-3,599	-12,500	-12,500
Free Cash Flow	-4,376	-1,808	3,487	7,879	6,377	2,900	1,723	1,888
Change in Investments	906	299	3	-1,854	-2,401	816	0	0
Others	53	486	-122	33	22	22	0	0
CF from Investments	-5,247	-1,626	-4,279	-3,961	-4,241	-2,761	-12,500	-12,500
Issue of Shares	1,463	0	0	0	0	0	0	0
Inc./(Dec.) in Debt	2,626	2,033	-1,088	-5,246	-2,812	-2,523	-27	-388
Interest Paid	-450	-841	-1,134	-736	-320	-233	-250	-252
Dividend Paid	-188	-213	-1,060	-4	-750	-955	-1,351	-1,454
Others	2	-20	-94	-5	24	120	0	0
CF from Fin. Activity	3,453	958	-3,376	-5,990	-3,858	-3,591	-1,627	-2,094
Inc./Dec. in Cash	36	-64	-8	68	139	148	95	-206
Opening Balance	58	94	30	22	90	229	377	473
Closing Balance	94	30	22	90	229	377	473	267

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. 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, 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, 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.

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.