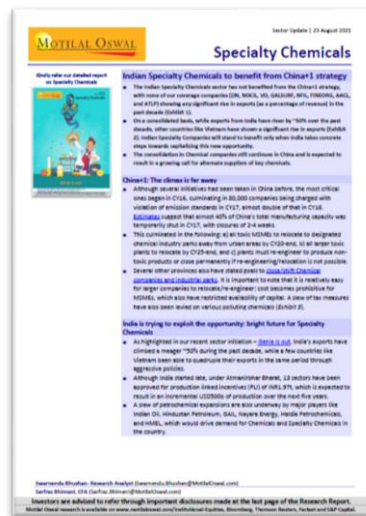
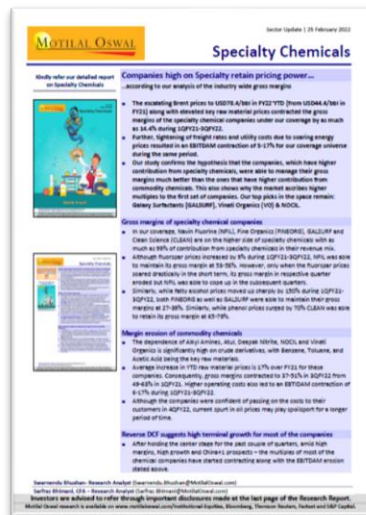
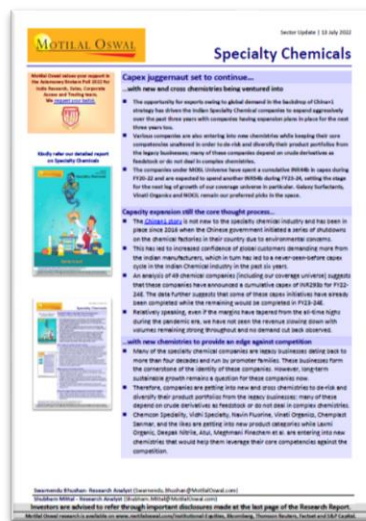


Our earlier report



Impact of the gas crisis in Europe on the Indian Chemicals space

Will Indian Chemical companies benefit from the gas crisis in Europe?

- Gas prices in Europe have risen 4.3x CY22'YTD, thus raising supply concerns from Europe—the second largest producer (EUR499b in CY20) of Chemicals after China (EUR1.5t).
- This, combined by frequent disruptions in China, should ideally benefit Indian Chemical producers. However, the export data so far is confusing. Inorganic Chemical exports rose 9% in FY23 till date, while that for Organic Chemicals fell 29%.
- While Indian companies may witness higher inquiries, regulatory and client approvals and capacities may limit benefits in the short-term. In the medium term, a resolution to the conflict between Russia and Ukraine may result in strong headwinds to enquiries.

Europe is the second largest producer of Chemicals globally

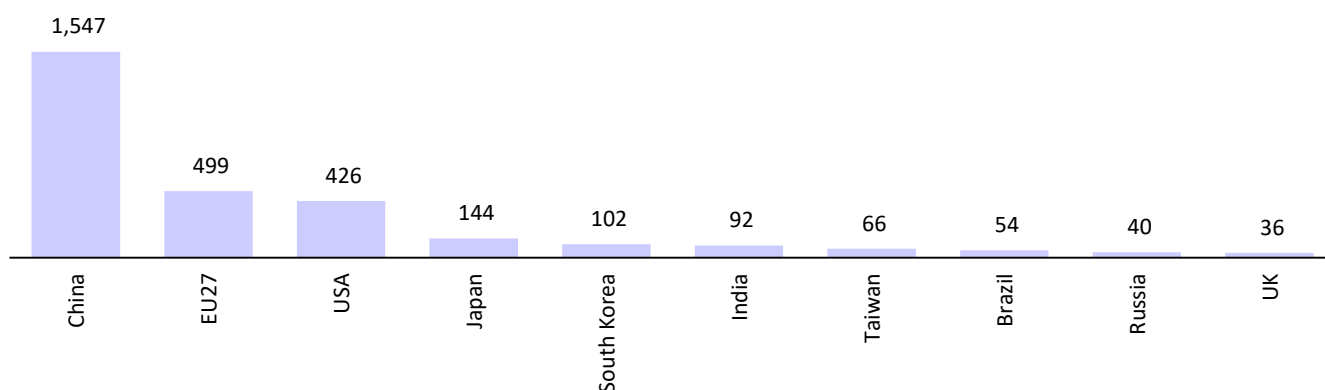
- The Chemical industry in Europe (EU27, ~EUR499b) was the second largest producer globally after China (EUR1,547b) in CY20. USA stood third at EUR426b, while India stood sixth at EUR92b. BASF's Ludwigshafen site is the world's largest integrated Chemicals complex with more than 200 plants across a 10 sq. km radius.
- The Chemical industry remains the largest consumer of natural gas, accounting for 15% of total consumption in Europe. Glass, Ceramics, and Chemicals account for half of the total industrial consumption of natural gas.
- Due to aggressive preventive measures, European natural gas inventories are nearly 90% full, almost nine weeks ahead of CY21 levels ([link](#)). This has resulted in a sharp decline in European natural gas prices MoM. Although gas availability may not be a problem, rising costs may force Chemical companies to lower output. End-users may look to replace this via low-cost imports from elsewhere, thereby resulting in an opportunity for Indian exporters.

Impact on the Indian Chemical industry

- Continued challenges in Europe and China present a golden opportunity to Indian manufacturers. However, it is still unclear to what extent India will gain from these supply challenges. An analysis of our coverage companies over the past decade suggests no sharp jump in exports vis-à-vis domestic sales.
- Electricity generation via coal stood at 74% in India in CY21. Europe, on the other hand, uses natural gas for producing 20% of its electricity. Indian companies, hence, are not that much affected by rise in natural gas costs as far as power costs are concerned.
- However, Indian Organic Chemical producers are certainly disadvantaged due to the lack of natural gas availability in India. As most raw materials (like methanol and acetic acid) are imported into India, manufacturers do not gain much from cheaper raw materials.

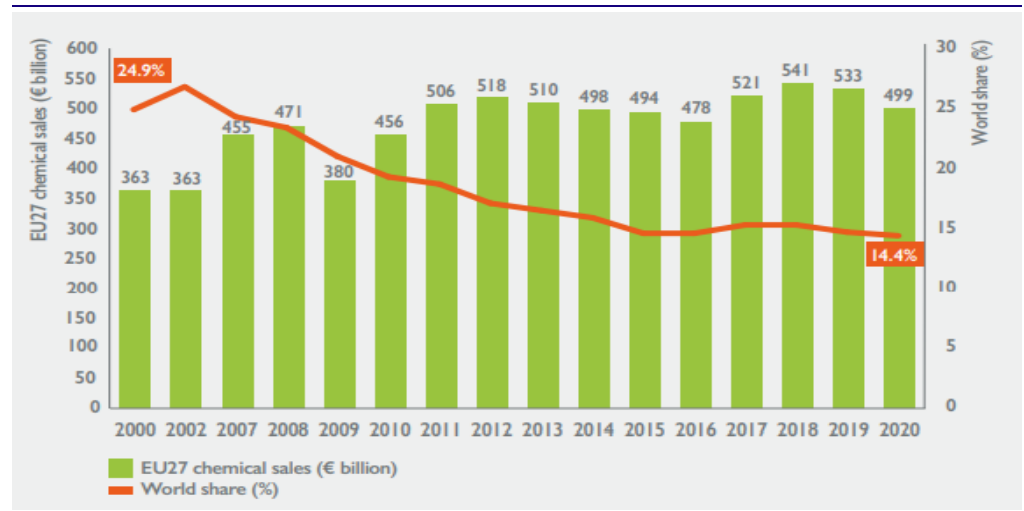
Valuation and view

- Although disturbances in Europe present an opportunity, especially for Indian Inorganic Chemicals manufacturers, Organic Chemicals' manufacturers may not benefit much due to disadvantages in terms of key raw materials like methanol, acetic acid, etc. Key Organic Chemical companies in our Coverage Universe are AACL, DN, ATLP, VO, and NOCIL. All these companies do not necessarily use gas-derived raw materials. For example, DN uses benzene and propylene, the former being a refinery product, while the latter is both a refinery and a natural gas product. VO uses phenol as a key input, which is a crude oil derivative.
- NOCIL uses aniline as a key raw material, which is again a crude derivative. GALSURF as well as FINEORG offer organic products, but are largely vegetable oil-based. The key raw material for NFIL is mostly hydrofluoric acid.
- Most chemical companies under our coverage are running at optimum capacity utilization. DN reported a utilization of 129% at its phenol plant. VO's ATBS plant is running at full utilization, while its anti-oxidant plant is in the process of ramping up production. NOCIL had announced a delay in its full plant utilization by a quarter in its 1QFY23 earnings concall. While FINEORG is running out of capacity, NFIL's Specialty Chemicals segment is close to optimum utilization.
- In light of the above, it is difficult to say to what extent Indian Chemical companies will benefit due to the ongoing European gas crisis, let alone the sustainability of the same beyond the next few months. As a result, we reiterate our Buy rating for NOCIL (TP of INR319, 22x FY24E EPS), GALSURF (TP of INR4,000, 45x FY24E EPS) and VO (TP of INR2,593, 45x FY24E EPS).

Exhibit 1: In terms of Chemical sales globally, China ranked numero uno in CY20 (EUR b)

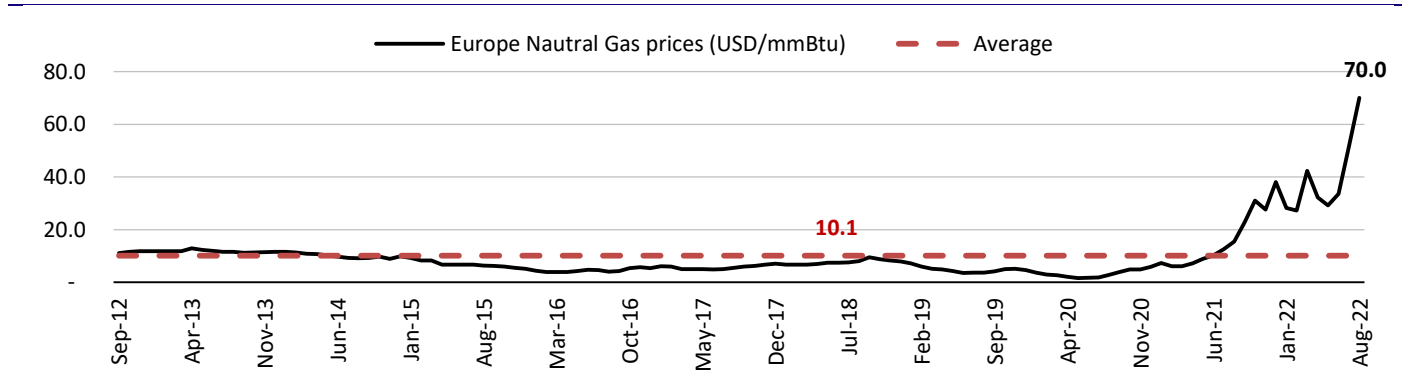
Source: Cefic, MOFSL

Exhibit 2: As a percentage of the total global Chemical market, the share of EU27 fell to 14% in CY20 from 25% in CY02



Source: Cefic, MOFSL

Exhibit 3: Gas prices in Europe have risen 4.3x CY22'YTD, was already up 452% in FY22 over FY21



Source: Bloomberg, MOFSL

Exhibit 4: Over the past decade, there is no sharp jump in exports v/s the domestic sales of companies

Exports (as a percentage of total revenue)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
AACL	23	22	22	19	20	22	20	21	19	18	17
ATLP	46	50	48	49	50	53	50	50	48	46	50
CLEAN								72	69	68	70
DN	42	41	39	39	40	39	42	32	28	29	22
FINEORG			59	59	54	62	57	55	55	55	55
GALSURF		61	63	61	65	64	64	64	65	65	62
NFIL	53	39	28	34	43	44	45	46	45	53	50
NOCIL				30	25	27	26	30	35	35	36
VO	76	76	67	68	67	71	71	73	74	68	69

Source: Company, MOFSL

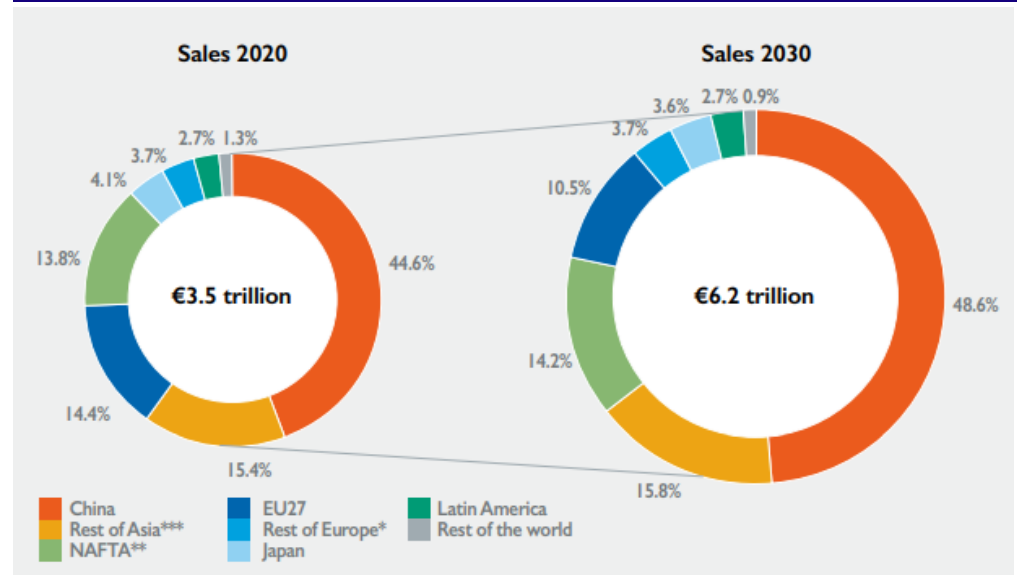
Importance of Europe in the global Chemical industry

- The Chemical industry in Europe (EU27) is the second largest globally, with sales of EUR499b in CY20, trailing China (EUR1,547b), but ahead of the US (EUR426b). India remained the sixth largest Chemicals player globally, with sales of EUR92b in CY20.
- As a percentage of global Chemical sales, the share of EU27 fell to 14% in CY20 from 25% in CY02. The same is set to decline further, with EU27 expected to

emerge as the fourth largest player. The share of EU27 is set to decrease to 10.5% in CY30 from 14.4% in CY20.

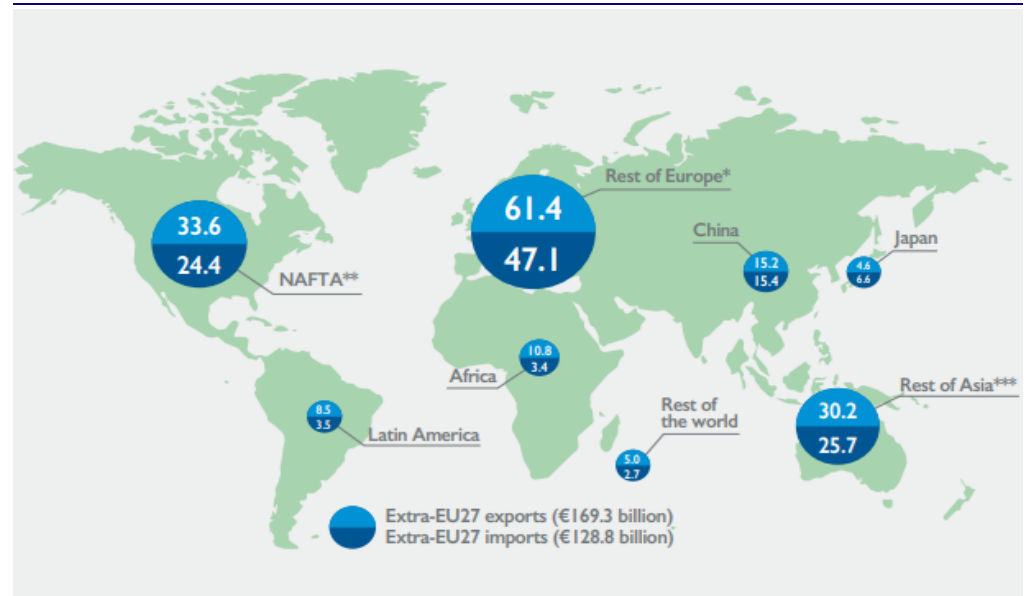
- Even after factoring in the above, EU27 has a huge trade surplus as compared to other larger Chemical players globally. Exports from EU27 stood at EUR169.3b in CY20, while total imports stood at EUR128.8b in CY20. Only China and Japan had a trade surplus in Chemicals with respect to the EU.

Exhibit 5: Europe to constitute a smaller slice of the larger Chemicals market over CY20-30



Source: Cefic, MOFSL

Exhibit 6: Chemical trade flows between EU27 and major geographic blocs in CY20

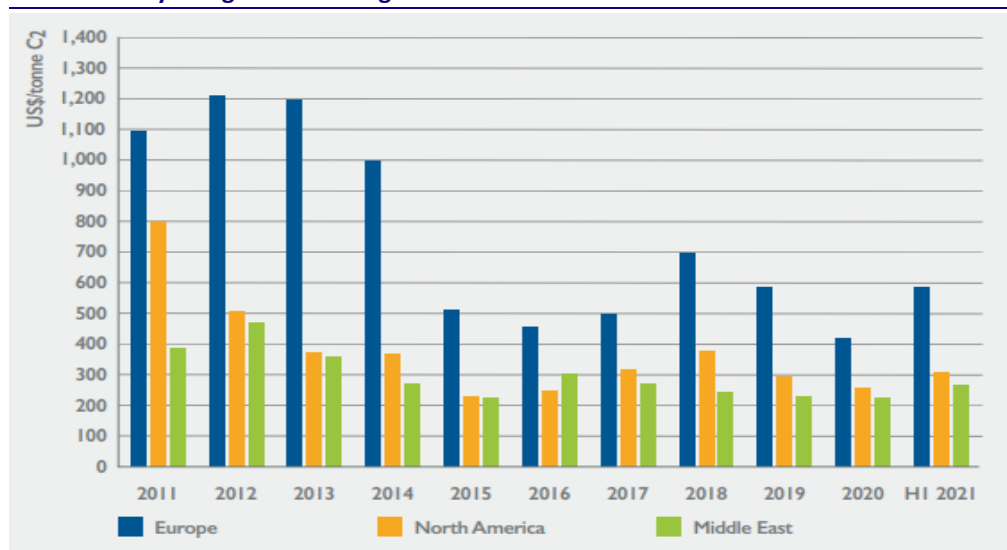


Source: Cefic, MOFSL

Gas prices in Europe

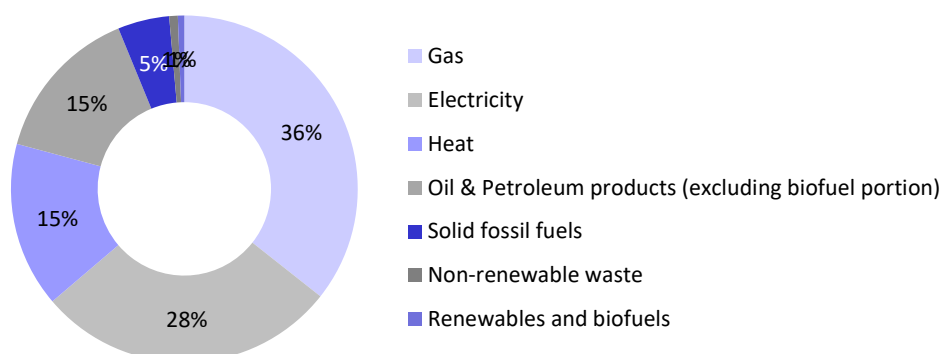
- Energy costs in Europe have always been the Achilles' heel for the industry as a whole as compared to North America and Middle East, data from a Cefic report for CY11 to 1HCY21 shows. In CY19, gas and electricity accounted for nearly two-thirds of the total energy consumption of the EU27 Chemical industry, with gas/electricity consumption being 36%/28%.
- Natural gas prices were higher even before the Russia-Ukraine crisis hit in Mar'22. Prices in FY22 rose 5.5x YoY to USD22.6/mmBtu. The current crisis has led to elevated gas prices (up 4.3x YoY in CY22 till date). Soaring energy costs will continue to impact production for Chemical companies in Europe.
- Gas shortage is over 70% in Europe, with winter demand expected to be 30% higher than that for the rest of the year. There have been record LNG shipments to Europe so far in CY22, with Norwegian, Algerian and Azerbaijani pipeline imports compensating for the supply shortfall from Russia. LNG processing in Europe is operating at full capacity as the EU plans to voluntarily reduce consumption by 15%.

Exhibit 7: Ethylene gas costs of regional steam crackers



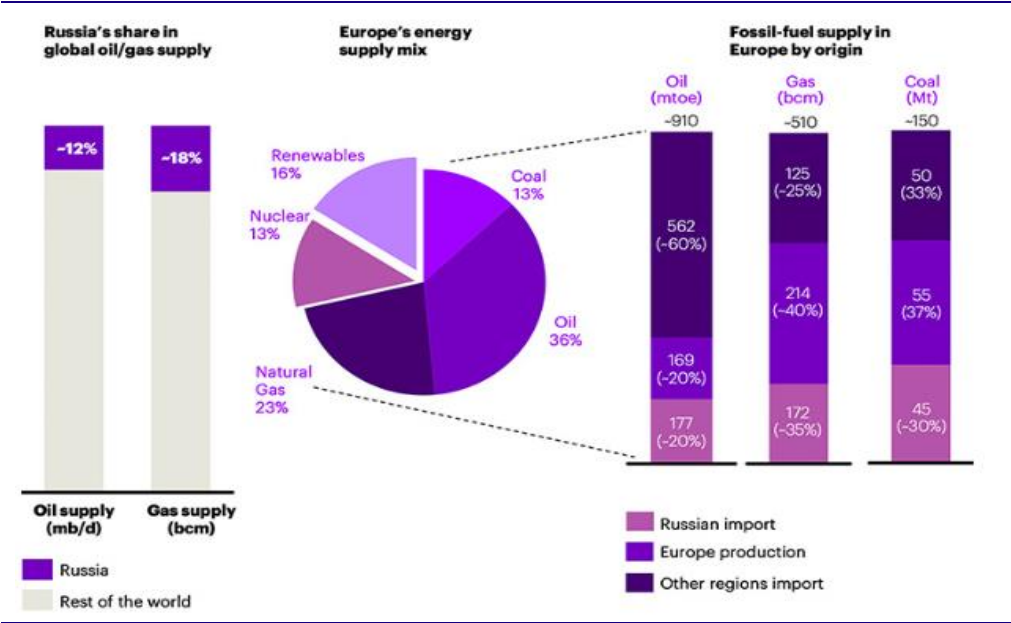
Source: ICIS, MOFSL

Exhibit 8: Total energy consumption in the EU27 Chemical industry by source (%)



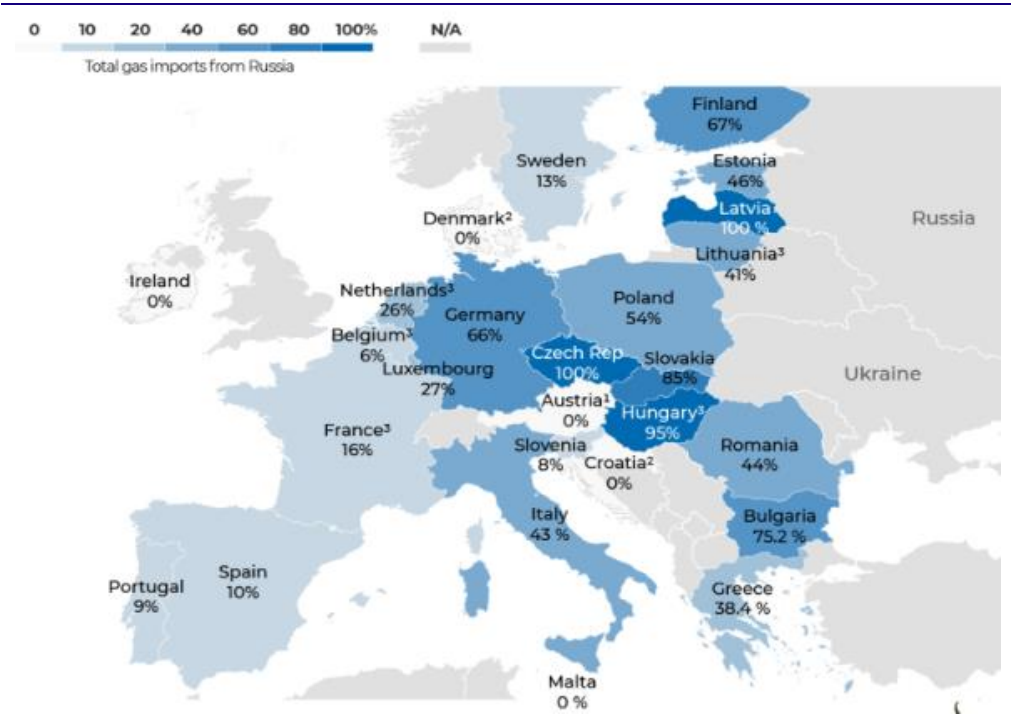
Source: Eurostat, MOFSL

Exhibit 9: Russia is a major supplier of Europe’s oil and gas

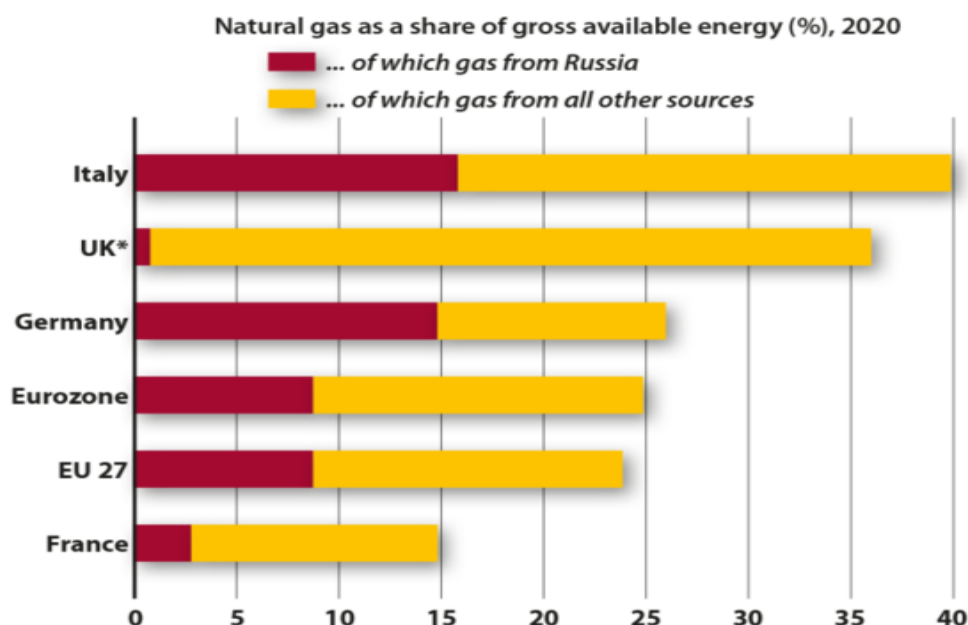


Source: IEA, MOFSL

Exhibit 10: Snapshot of Russian gas imports into the EU



Source: Eurostat, MOFSL

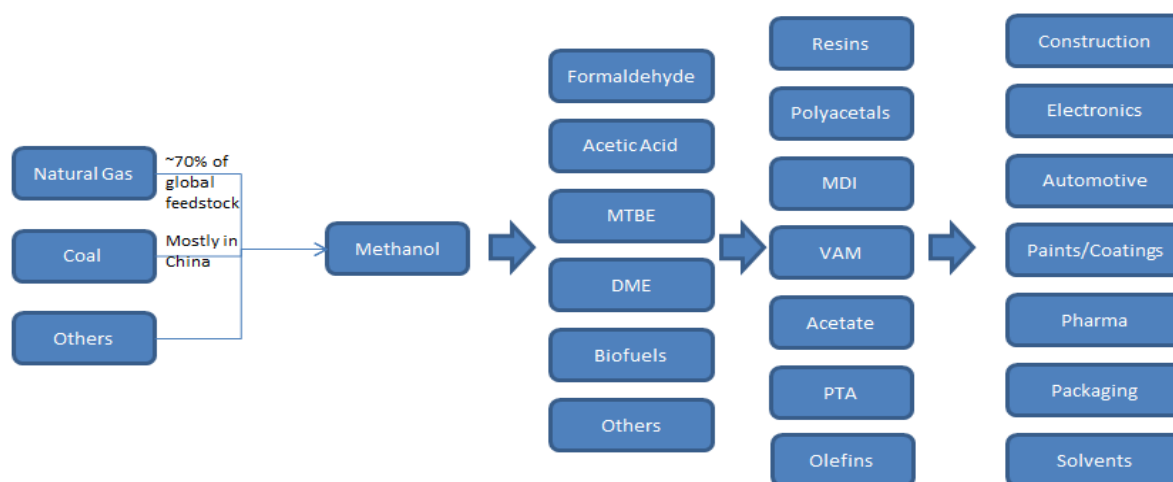
Exhibit 11: Germany and Italy are particularly dependent on Russian natural gas

*UK data is for CY19

Source: Eurostat, MOFSL

Export and import of Indian Chemicals

- Our analysis of data from the Ministry of Commerce and Industry shows that Chemical exports from India clocked 8% CAGR over FY12-22, with growth in the export of Organic/Inorganic Chemicals at 9%/5%.
- If we look at the recent data, it shows that the Chemical exports have declined by 15% YoY in FY23 till date. Even though there has been a 9% growth in Inorganic Chemical exports, the same for Organic Chemicals has fallen significantly (down 29%) over the same period.
- India was a net importer of the whole basket of Organic Chemicals in FY21, as per data from the Department of Chemicals and Petrochemicals. Imports rose by 6% CAGR to 3,716tmt, while exports fell by 2% CAGR to 296tmt over FY14-21.

Exhibit 12: Natural gas is used as a feedstock by Organic chemical producers; India stands at a disadvantage

Source: Industry, MOFSL

Exhibit 13: Chemical exports from India clock 8% CAGR over FY12-22

Commodity (tmt)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23 till date
Organic Chemicals	3,144	3,319	3,556	3,577	3,960	3,849	5,976	7,603	7,331	7,936	7,757	2,233
Inorganic Chemicals	2,510	2,184	2,472	2,764	2,729	3,120	3,389	3,186	3,147	3,275	4,285	1,376
Miscellaneous Chemical products	876	938	1,053	1,091	1,115	1,176	1,436	1,556	1,880	1,613	1,953	649
Total	6,529	6,441	7,082	7,432	7,805	8,145	10,801	12,345	12,357	12,824	13,995	4,258

*Numbers may differ as methodology of calculation may differ for different sources

Source: Ministry of Commerce, MOFSL

Exhibit 14: India is a net importer of key Organic Chemicals with imports rising at 6% CAGR over FY14-21

Net Imports (tmt)	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Methanol	1,229	1,592	1,668	1,625	1,774	1,976	2,273	2,211
Acetic Acid	657	706	784	835	872	919	914	894
Organic Chemicals	2,161	2,645	2,912	2,980	3,202	3,412	3,531	3,420

Imports (tmt)	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Methanol	1,310	1,642	1,712	1,637	1,783	1,987	2,286	2,220
Acetic Acid	665	712	793	848	885	937	926	904
Organic Chemicals	2,496	2,886	3,143	3,170	3,407	3,645	3,775	3,716

Source: Department of Chemicals and Petrochemicals, MOFSL

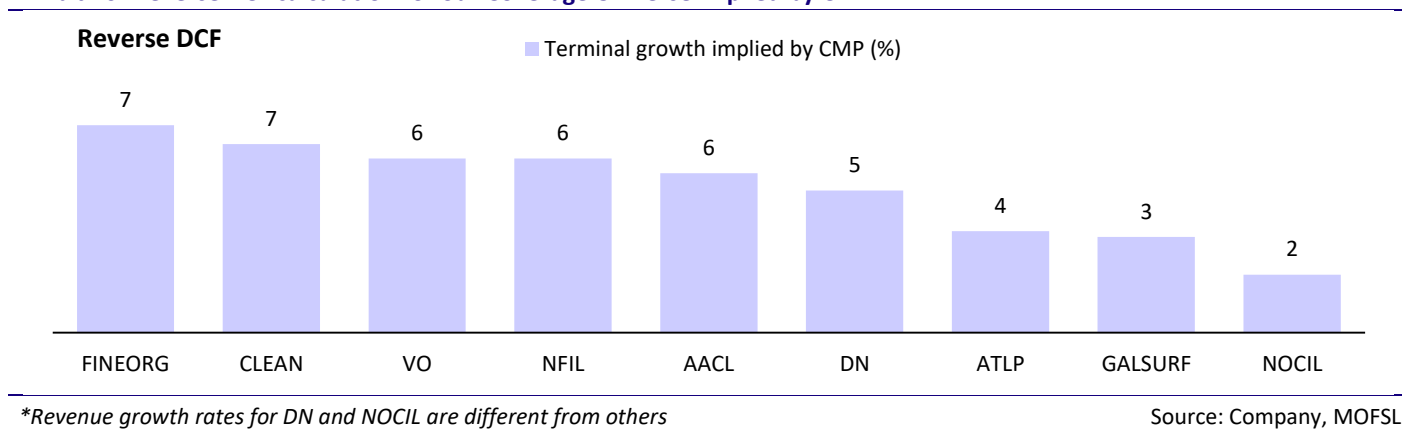
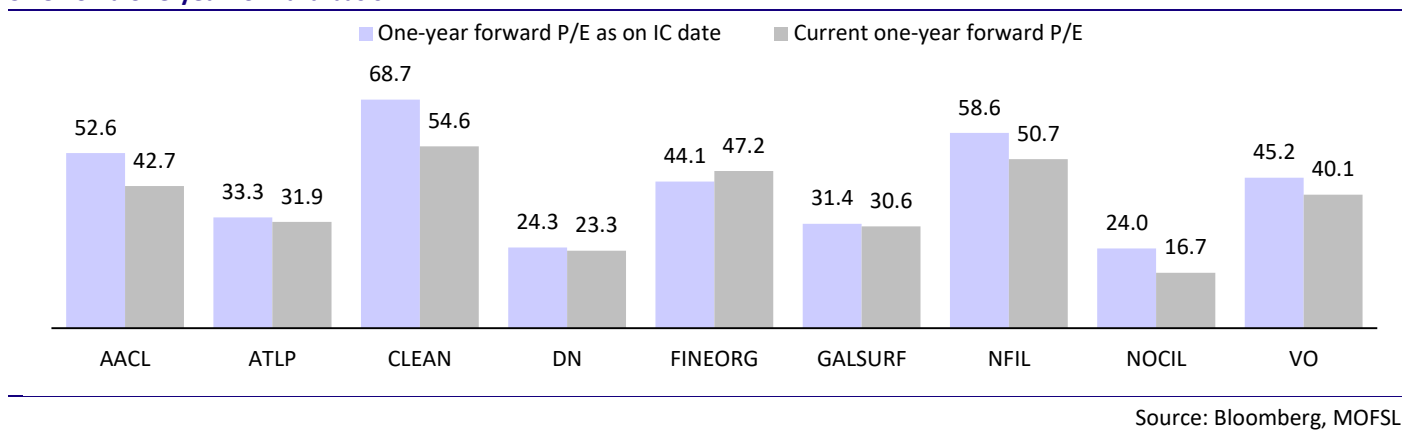
Valuation and view

- Over the past six months, three stocks under our Coverage Universe have corrected by 9-14% – with the highest erosion of 14% seen in ATLP, while FINEORG and NFIL have delivered 73%/10% returns, with the remaining stocks up 2-7% over the same period.
- We ran a three-stage DCF to analyze what revenue growth the stock prices imply in terms of terminal growth. At the CMP, the terminal growth for most companies stands at 5-7%, even after 15-years of double-digit revenue growth. **We recommend a Buy rating on NOCIL, GALSURF, and VO from our Coverage Universe.**
- **GALSURF:** The continued focus on R&D (with an annual expenditure of INR400-500m) and increased wallet share from existing customers is likely to drive volume growth and expand EBITDA margin. Volumes grew by ~6% CAGR over the last five years. We build a similar growth over FY22-24 as well. We maintain our Buy rating with a TP of INR4,000.
- **VO:** The demand outlook for the ATBS segment remains positive going forward, after a temporary blip in FY22. Veeral Organics Pvt. (a wholly-owned subsidiary of VO) is set to commence production of MEHQ, Guaiacol, and Iso Amylene in 1HFY24E, which should propel the next-level of the growth story for VO. We value the stock at 45x FY24E EPS to arrive at our TP of INR2,680. We maintain our Buy rating.
- **NOCIL:** In volume terms, the Indian Tyre industry is likely to grow by 7-9% in FY23. Domestic Tyre companies are planning to ramp up production, with a planned capex of INR200b over the next three years. Valuing NOCIL at 22x FY24E EPS, we arrive at our TP of INR319. We reiterate our Buy rating.

Exhibit 15: Comparative valuations of stocks in our Specialty Chemicals Coverage Universe

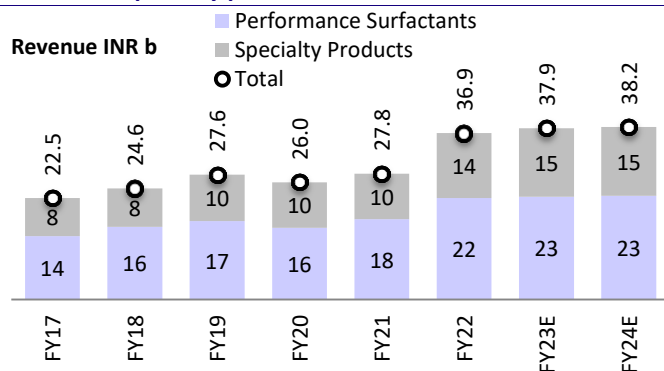
Company	Rating	TP (INR)	EPS (INR)			P/E ratio (x)			P/BV ratio (x)			EV/EBITDA ratio (x)			RoE (%)			Div. yield FY22
			FY22	FY23E	FY24E	FY22	FY23E	FY24E	FY22	FY23E	FY24E	FY22	FY23E	FY24E	FY22	FY23E	FY24E	
Alkyl Amines	Neutral	2,968	44.0	58.8	74.2	67.7	50.7	40.1	15.4	12.5	10.1	46.8	35.0	27.6	25.2	27.2	27.9	0.3
Atul	Neutral	8,991	198.7	242.7	256.9	46.7	38.2	36.1	6.2	5.4	4.8	30.6	25.9	23.7	14.3	15.2	14.1	0.3
Clean Science	Neutral	1,660	21.5	30.6	41.5	86.1	60.5	44.6	25.6	18.8	13.9	66.1	46.3	34.0	34.9	35.9	35.8	0.2
Deepak Nitrite	Neutral	1,887	78.2	80.6	85.8	27.7	26.8	25.2	8.8	6.9	5.6	18.6	18.2	16.7	37.5	28.9	24.5	0.3
Fine Organic	Neutral	5,577	81.8	112.5	111.5	86.7	63.0	63.5	22.7	18.1	15.1	61.5	44.0	44.0	29.5	32.0	25.9	0.1
Galaxy Surfact.	Buy	4,000	74.1	91.7	88.9	42.6	34.4	35.5	7.1	6.2	5.4	28.8	22.5	22.7	18.3	19.2	16.2	0.6
Navin Fluorine	Neutral	4,324	53.8	80.0	108.1	86.2	58.0	42.9	12.3	10.5	8.8	65.3	43.4	32.1	15.2	19.6	22.4	0.2
NOCIL	Buy	319	10.6	13.3	14.5	24.5	19.4	17.8	3.0	2.7	2.5	15.7	12.8	11.6	13.0	14.8	14.7	1.2
Vinati Organics	Buy	2,593	33.7	43.1	57.6	62.2	48.7	36.4	11.8	9.9	8.1	50.3	38.0	28.5	20.6	22.1	24.4	0.3

Source: MOFSL

Exhibit 16: Reverse DCF calculation for our Coverage Universe implied by CMP**Exhibit 17: One-year forward P/E was 42.5x as of our IC date (30th Jun'21). At present, the sector is trading at a multiple of 37.5x on a one-year forward basis**

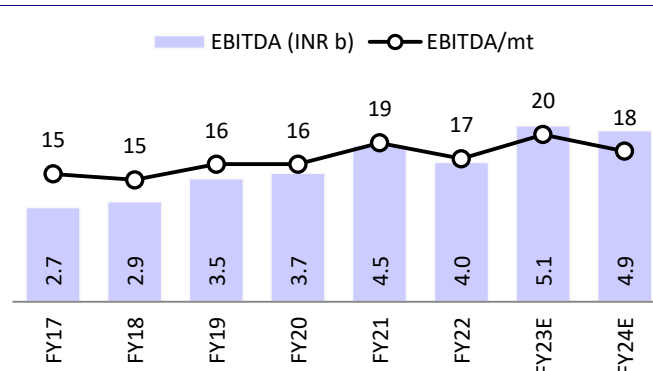
GALSURF – Financial summary and assumptions (TP: INR4,000) – Buy

Exhibit 18: Specialty products to have consistent share



Source: Company, MOFSL

Exhibit 19: EBITDA/MT is set to increase to INR18-20



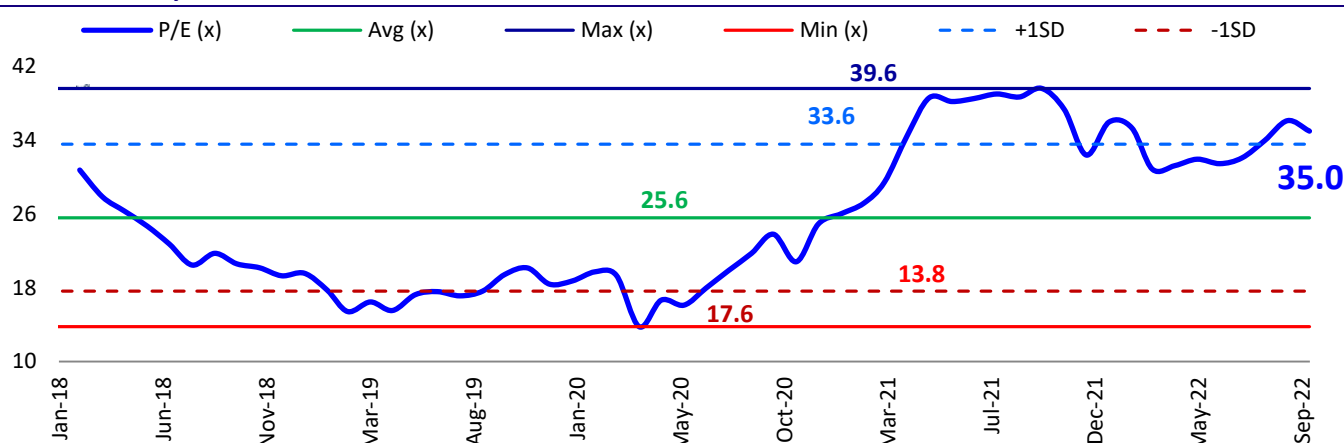
Source: Company, MOFSL

Exhibit 20: Financial summary

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Sales	18.7	22.5	24.6	27.6	26.0	27.8	36.9	37.9	38.2
EBITDA	2.4	2.7	2.9	3.5	3.7	4.5	4.0	5.1	4.9
PAT	1.0	1.5	1.6	1.9	2.3	3.0	2.6	3.3	3.2
EPS (INR)	29	42	45	54	65	85	74	92	89
EPS Gr. (%)	53	44	7	21	21	31	(13)	24	(3)
BV/Sh. (INR)	126	162	203	247	301	367	444	514	581
Ratios									
Net D:E ratio	0.9	0.6	0.4	0.3	0.2	0.1	0.2	0.1	(0.0)
RoE (%)	24.9	28.9	24.4	23.9	23.7	25.5	18.3	19.2	16.2
RoCE (%)	14.3	17.8	17.3	18.4	19.1	21.1	15.5	16.8	15.2
Payout (%)	24.9	11.6	8.1	26.9	31.5	21.1	24.3	24.3	24.3
Valuations									
P/E ratio (x)	98.8	68.8	64.3	53.2	44.1	33.6	38.7	31.2	32.2
P/BV ratio (x)	22.7	17.7	14.1	11.6	9.5	7.8	6.5	5.6	4.9
EV/EBITDA ratio (x)	44.8	38.8	36.4	29.5	28.3	22.9	26.1	20.4	20.5
Div. Yield (%)	0.2	0.1	0.1	0.4	0.6	0.6	0.6	0.8	0.8
FCF Yield (%)	0.7	0.7	0.9	1.1	1.7	2.5	(1.5)	2.4	2.9

Source: Company, MOFSL

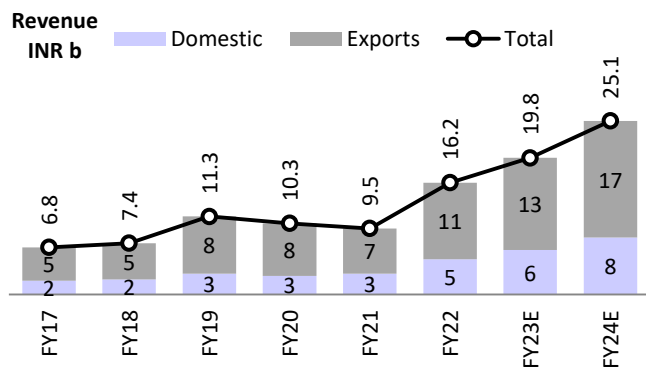
Exhibit 21: One-year forward P/E ratio for GALSURF trades at 35x



Source: Company, MOFSL

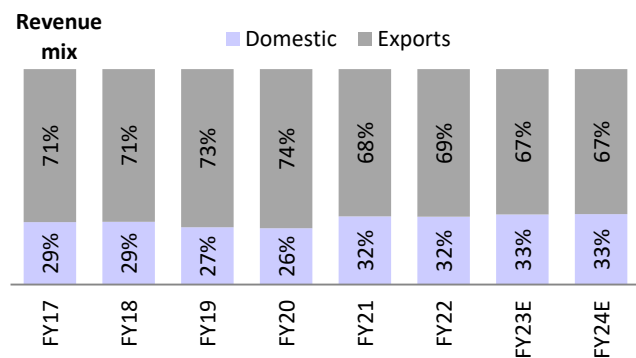
VO – Financial summary and assumptions (TP: INR2,593) – Buy

Exhibit 22: Expect 26% revenue CAGR over FY22-24



Source: Company, MOFSL

Exhibit 23: Exports likely to remain high



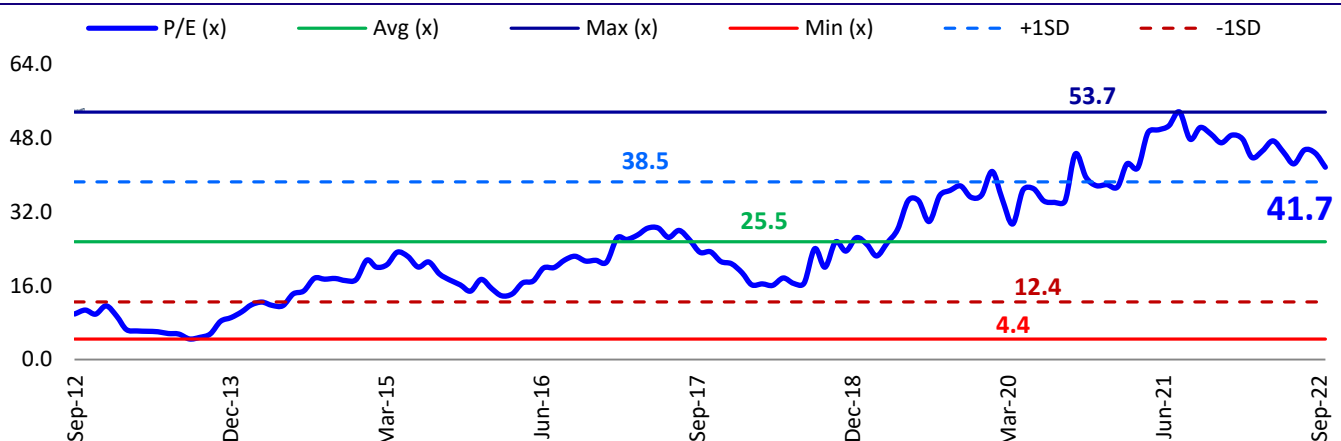
Source: Company, MOFSL

Exhibit 24: Financial summary

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Sales	6.3	6.8	7.4	11.3	10.3	9.5	16.2	19.8	25.1
EBITDA	2.1	2.2	2.0	4.2	4.1	3.5	4.3	5.7	7.7
PAT	1.3	1.4	1.4	2.8	3.3	2.7	3.5	4.4	5.9
EPS (INR)	12.8	13.6	14.0	27.5	32.5	26.2	33.7	43.1	57.6
EPS Gr. (%)	13.6	6.6	2.6	96.3	18.2	(19.3)	28.7	27.8	33.6
BV/Sh. (INR)	52.6	66.2	77.5	102.3	124.5	150.2	177.9	212.7	259.2
Ratios									
Net D:E ratio	(0.1)	(0.0)	0.0	(0.0)	(0.0)	(0.0)	0.0	0.0	0.0
RoE (%)	27.0	23.0	19.5	30.6	28.6	19.1	20.6	22.1	24.4
RoCE (%)	23.4	20.5	17.6	27.9	26.9	18.1	19.5	20.7	22.7
Payout (%)	18.9	2.2	2.2	9.9	31.6	22.9	19.3	19.3	19.3
Valuations									
P/E ratio (x)	157.0	147.2	143.5	73.1	61.9	76.7	59.6	46.6	34.9
P/BV ratio (x)	38.2	30.4	25.9	19.6	16.1	13.4	11.3	9.4	7.8
EV/EBITDA ratio (x)	99.7	95.2	104.8	48.8	49.8	58.6	47.6	36.0	27.1
Div. Yield (%)	0.1	0.0	0.0	0.1	0.3	0.3	0.3	0.4	0.6
FCF Yield (%)	0.5	0.1	0.5	0.8	0.5	0.8	(0.2)	0.7	1.0

Source: Company, MOFSL

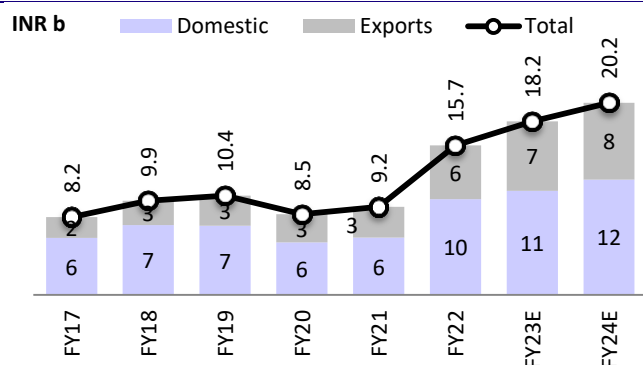
Exhibit 25: One-year forward P/E ratio for VO trades at 42x



Source: Company, MOFSL

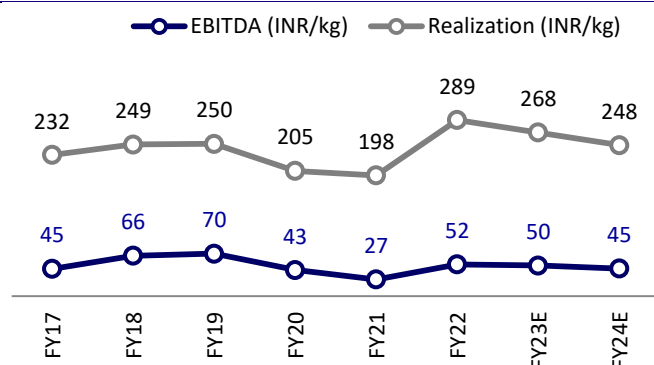
NOCIL – Financial summary and assumptions (TP: INR319) – Buy

Exhibit 26: Exports to constitute ~40% of total revenue



Source: Company, MOFSL

Exhibit 27: Realization/mt and EBITDA/mt snapshot



Source: Company, MOFSL

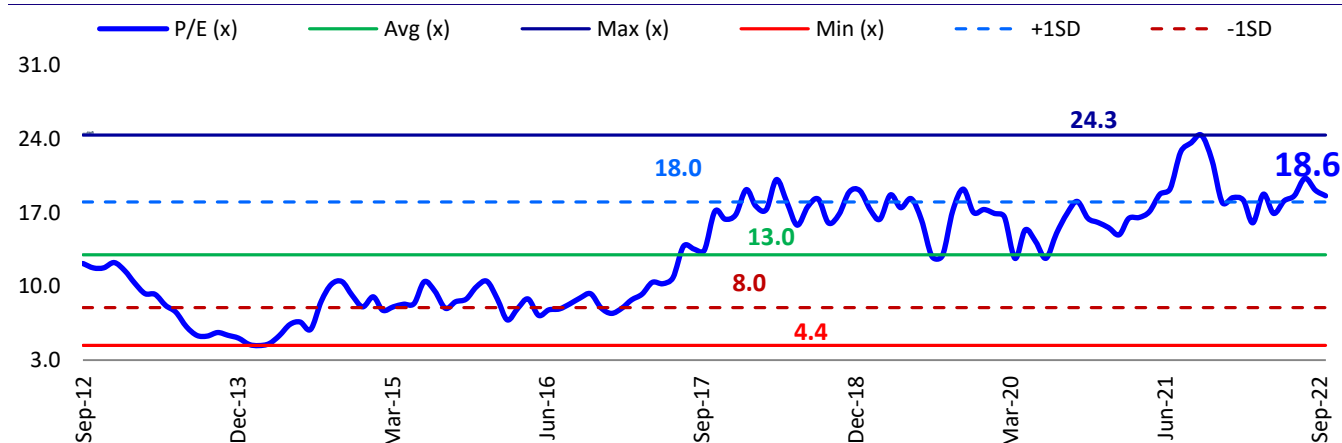
Exhibit 28: Financial summary

(INR b)

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Sales	7.9	8.2	9.9	10.4	8.5	9.2	15.7	18.2	20.2
EBITDA	1.4	1.6	2.6	2.9	1.8	1.3	2.8	3.4	3.7
PAT	0.8	1.0	1.7	1.8	1.3	0.9	1.8	2.2	2.4
EPS (INR)	4.7	5.8	10.1	11.1	7.9	5.2	10.6	13.3	14.5
EPS Gr. (%)	37.0	24.6	74.1	9.2	(28.9)	(34.0)	103.0	26.0	9.0
BV/Sh. (INR)	28.2	54.4	62.4	69.4	70.8	76.6	86.1	94.1	102.8
Ratios									
Net D:E ratio	0.0	(0.1)	(0.0)	(0.0)	(0.0)	(0.1)	(0.0)	(0.1)	(0.1)
RoE (%)	17.6	14.1	17.4	16.8	11.2	7.1	13.0	14.8	14.7
RoCE (%)	14.7	12.6	15.6	15.4	10.5	6.6	12.2	13.9	13.9
Payout ratio (%)	29.9	24.0	21.0	27.0	76.0	38.5	28.4	40.0	40.0
Valuations									
P/E ratio (x)	51.6	41.4	23.8	21.8	30.6	46.4	22.9	18.1	16.6
P/BV ratio (x)	8.6	4.4	3.9	3.5	3.4	3.2	2.8	2.6	2.3
EV/EBITDA ratio (x)	29.2	24.8	15.2	13.7	22.7	31.0	14.2	11.6	10.4
Div. Yield (%)	0.5	0.5	0.7	1.0	1.9	0.8	1.2	2.2	2.4
FCF Yield (%)	3.8	3.2	1.3	(1.8)	(0.0)	1.6	(1.6)	4.0	5.1

Source: Company, MOFSL

Exhibit 29: One-year forward P/E ratio for NOCIL trades at 19x



Source: Company, MOFSL

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

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