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Neogen Chemicals Ltd

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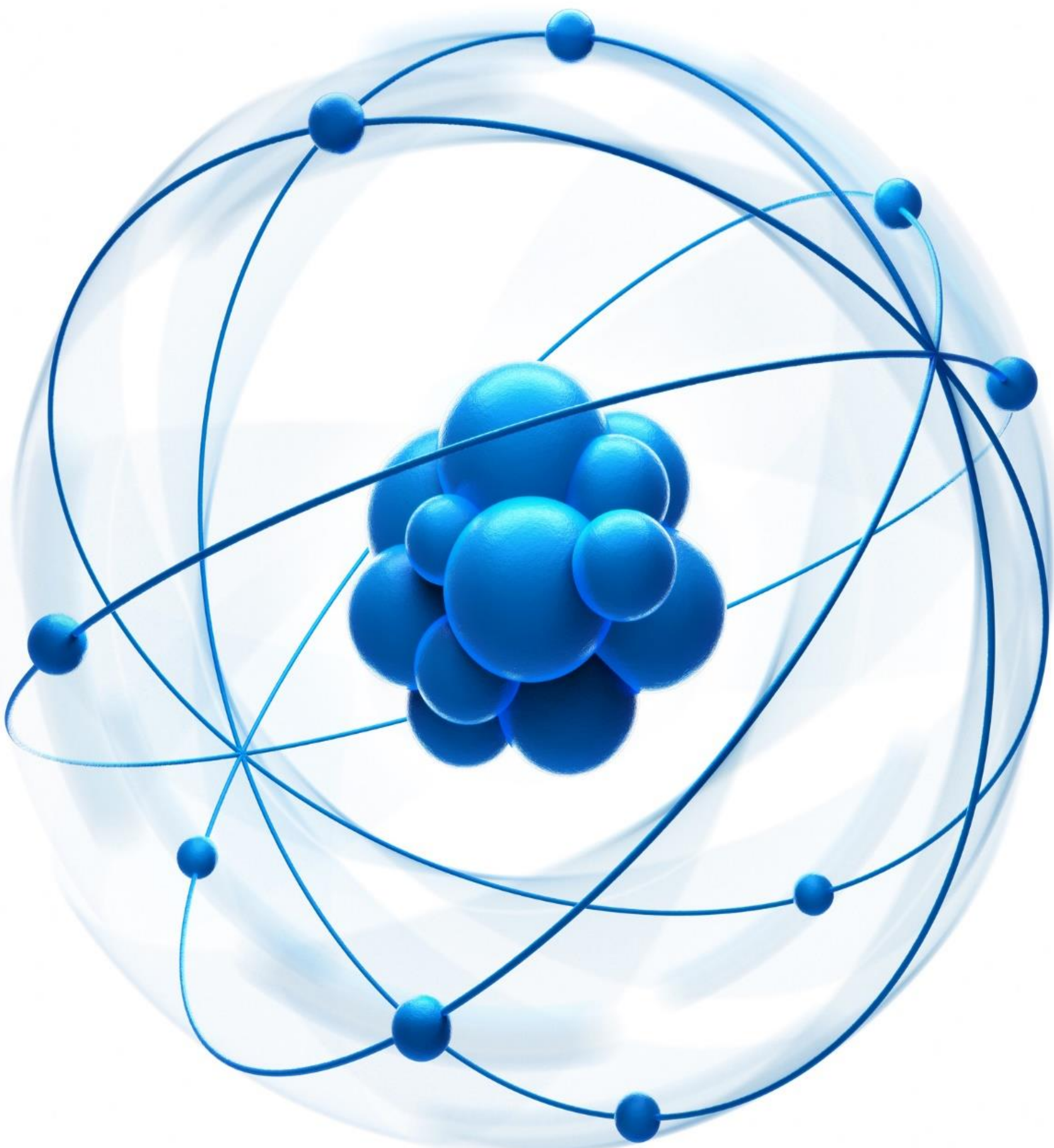

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Date: 02 December 2020

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Long Term Recommendation
Neogen Chemicals Ltd

Transitioning into a CSM player

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CMP INR: 624

Rating: BUY

Target Price INR: 758

Upside: 22%

Bloomberg:	Neogen:IN
52-week range (INR):	303/ 820
Share in issue (cr):	2.3
M cap (INR cr):	1,467
Promoter Holding (%)	64.32

Neogen Chemicals (Neogen) is a play on the niche segment of organic bromine derivatives. Large opportunity size (~15x of current revenue), technocratic promoters, impetus on research, strong relationships with marquee customers to whom they supply intermediates for regulated end industries are sources of competitive advantage for the company. With continued strong demand, 1.8x increase in capacity coming on-stream in Q4FY21/FY22 and two recently inked long-term contracts with innovator companies that demonstrate success in its custom synthesis business, we remain positive on Neogen's growth prospects.

Niche products with entry barriers and strong demand; capex to aid growth

Neogen manufactures organobromides (~80% of revenue) and inorganic lithium salts (~20%). Organobromides see strong demand from pharma and agrochemical industries. Difficulty in handling bromine, R&D driven product development, and specialty nature of products act as entry barriers. We expect the Organic Chemicals segment to clock 26% CAGR over FY20-23E, as Dahej greenfield capex phases gets commissioned in Q4FY21/FY22 and the current capacity constraint is mitigated.

Moving up the curve on R&D capabilities; will foster margin expansion

Technocrat promoters (both Mr. Haridas Kanani and Dr. Harin Kanani are IIT Bombay alumni and Mr. Haridas Kanani is a pioneer in bromination in India) have focused on the advanced intermediates and custom synthesis space since FY16 which has started to yield results. This would lead to higher demand, better realizations, improving profitability from value added complex products, strong relationships with innovator customers and better earnings visibility.

Working capital cycle and leverage to see improvement

Shortening WC cycle should aid operating cash generation with focus on tweaking various levers like inventory management, process efficiencies, and favourable credit terms with both customers and suppliers. While debt is the primary source of funding for capex, we expect it to be under control (peak D/E can be at 1.2).

Robust growth ahead; initiating coverage with a BUY rating

We expect Neogen to clock 23%/26%/32% CAGR in revenue/EBITDA/PAT, over FY20-23E. Improving capacity utilization and strengthening of balance sheet are expected to improve ROAE/ROACE over FY21-23E. We initiate coverage with a BUY and a TP of INR 758 (upside of 22%), valuing the company at 27x FY23E earnings.

	FY19	FY20	FY21E	FY22E	FY23E
Revenues (INR cr)	239	306	337	463	572
EBITDA (INR cr)	43	58	61	91	115
EBITDA Margin (%)	18.2	19.0	18.2	19.6	20.1
Net Profit (INR cr)	21	29	30	48	65
Net Profit Margin (%)	8.8	9.4	8.8	10.4	11.5
EPS (INR)	10.5	12.3	12.7	20.6	28.1
EPS Growth (%)	-	17.5	3.5	61.8	36.4
P/E (x)	59.6	50.8	49.1	30.3	22.2
EV/EBITDA (x)	31.5	27.4	26.6	18.2	14.2
RoACE (%)	24.5	21.4	16.3	20.1	22.6
RoAE (%)	34.6	25.2	17.4	23.0	24.8

Date: December 02, 2020

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Structure

We expect Neogen to clock **23% revenue CAGR** over FY20-23E led by:

a) **Strong demand** for bromine derivatives from pharma and agrochemical industries;
b) **Specialty nature of products** (under 2,000 MTPA global demand) that require **R&D capabilities** and **ability to handle bromine** – a hazardous chemical. This **reduces competitive intensity in the segment** and **aids customer stickiness**;
c) Inking of **two long-term contracts** with innovator companies gives revenue visibility – could be enhanced by higher-than-committed offtake by these customers and undertaking new contracts (**in discussion with 4-5 other customers**);
d) **1.8x Increased capacity** post commissioning of the Organic Chemicals facility at Dahej **in two phases in Q4FY21/FY22** will support growth;

Additionally, we expect **EBITDA margin to expand from 19.0% in FY20 to 20.1% in FY23E** due to

a) **increasing contribution from profitable businesses** like advanced intermediates for active pharmaceutical or agrochemical ingredients players and custom synthesis and manufacturing
b) **absorption of fixed cost** as new capex gets optimally utilized.

Improving profitability will also aid **PAT CAGR of 32% over FY20-23E**.

We expect continued demand from end industries. **Further capex will continue the growth trajectory beyond FY23E**, while **focused efforts by the management towards improving the working capital cycle would aid cash generation.**

Large opportunity size, focused and technocratic promoters, R&D capabilities (first R&D centre was started in Mahape from 2000), strong relationships with marquee customers, and intermediates for regulated end industries are sources of competitive advantage for the company, along with the option value that may emerge from success of the CSM business.

We initiate coverage on the stock with a BUY and a target price of INR 758, valuing the company at 27x FY23E EPS.

Strong demand for organic bromine derivatives, available capacity, along with higher contribution from its innovation driven business and long-term contracts to drive revenue growth and margin expansion

INR crore	FY20	FY21E	FY22E	FY23E
Revenue	306	337	463	572
EBITDA	58	61	91	115
EBITDA margin	19.0%	18.2%	19.6%	20.1%
PAT margin	9.4%	8.8%	10.4%	11.5%

RoACE is expected to increase with better utilisation of newer capacities, improving margin profile from product mix changes and gradual enhancement in the working capital cycle

	FY20	FY21E	FY22E	FY23E
ROACE	21%	16%	20%	23%
Debt-to-equity ratio	0.9	0.9	0.9	0.6

We expect 32% PAT CAGR over FY20-23E. We value Neogen at 27x FY23E EPS and recommend a BUY

	FY23E EPS	Target
27x	28.1	758

At the current market price, the stock is trading at an FY23E P/E of 22x

+

Expect Return on Equity (RoE) to improve over FY21-23E

+

At our target price, the stock is trading at FY23E P/E of 27x

Upside: 22%

Structure

Business value drivers

Nature of industry	Neogen's products – organic bromine derivatives and lithium salts – cater to a specialised industry (characterised by global annual volumes of less than 2,000 metric tonne (MT) for individual products) with few competitors worldwide. Its foray into R&D driven advanced intermediates and custom synthesis would further enhance its competitive position.
Opportunity size	Opportunity size is large compared to its current size. As per the management, the market size for its organic and inorganic chemicals stands at around INR 4,000 crore and INR 1,200 crore, respectively, for the current set of molecules in its product portfolio. This will increase with new product additions (advanced intermediates can add further INR 2,000-3,000 crore).
Capital allocation	Technocratic promoters have been allocating capital to its core business only. Return on capital employed (RoCE) has also remained consistently above 20% level (except in FY21E when substantial gross block will be added).
Predictability	Historically, product offtake has remained robust, particularly in the organic segment (which contributes around 80% of turnover). Revenue growth has hence been largely a function of capacity available to sweat. This is largely due to its sizeable exposure to the pharmaceutical and agrochemical industry in the area of innovator/patented products, where demand is defensive reflecting consistent R&D spends of customers.
Sustainability	Neogen's products are key intermediates used in manufacture of pharma APIs or agrochemical active ingredients. The *building blocks* nature of these products lends comfort on its sustainability in non-discretionary and regulated markets. Further, inclusion as a vendor in Drug Master Files (DMF) in regulated market enhances sustainability of business.
Business strategy and planned initiatives	The management is currently focusing on the following strategies to facilitate growth and revenue sustainability: a) Increasing capacity through greenfield expansion at Dahej to cater to the strong demand, as Organic Chemicals capacity is running at peak utilization. b) Neogen had initially planned doubling of capacity but had recently committed further capex to cater for increased requirement with the two long-term contracts coming on board and more on the way. c) Focusing on delivering products with complex chemistries via advanced intermediates and custom synthesis that increases opportunity size, realizations and hence profitability of incremental business. d) This would also foster competitive advantage development as Neogen moves further into niche area where R&D capabilities remain key e) With large share in domestic market, Neogen plans to tap into overseas markets to grow its Inorganic Chemicals business f) Strengthening of balance sheet by shortening working capital cycle and controlling debt levels
Near-term visibility	Growth visibility in the near term remains robust due to strong demand from existing products as well as the new contracts, which will be supported by commissioning of substantial capacity at Dahej.
Long-term visibility	Neogen's long-term growth (post FY23E) is expected to be sustained by: a) Large opportunity size and new products/long-term contracts; b) Increasing depth (multi-step product development/ process chemistry) and breadth (increasing competency in allied chemistries) in its chemistry skills through R&D initiatives; and c) Strong relationships with customers who are global innovators based out of Europe and Japan
Risk factors	Risk related to working capital management remains key. Neogen has a long working capital cycle. While management is focusing on reducing the cycle, any challenges on the same could deteriorate risk perception, delay cash generation and increase debt levels.

Story in a nutshell

Exhibit 1: Strong growth in organic chemicals is expected…

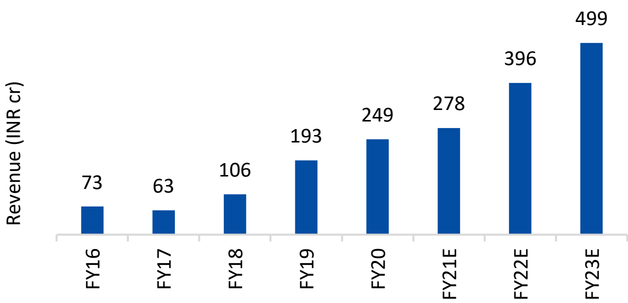


Exhibit 2: …to be driven by ramp-up of new capacities…

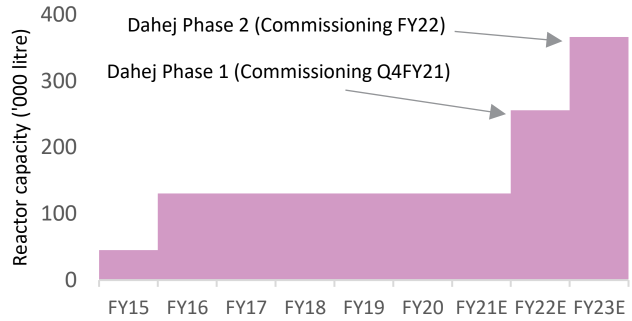


Exhibit 3: …and new product development

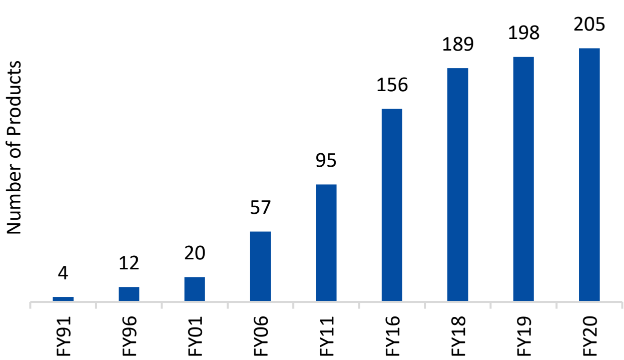
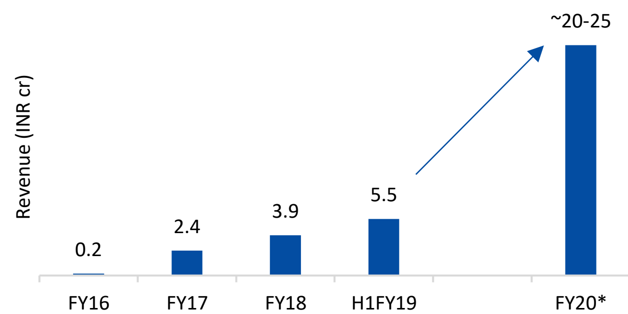


Exhibit 4: Increasing contribution of more profitable segments like advanced intermediates and CSM…



Note: *Estimated contribution of CSM segment. Management indicates that contribution of CSM business is ~8-10%.

Exhibit 5: …would play a key role in gross margin expansion,…

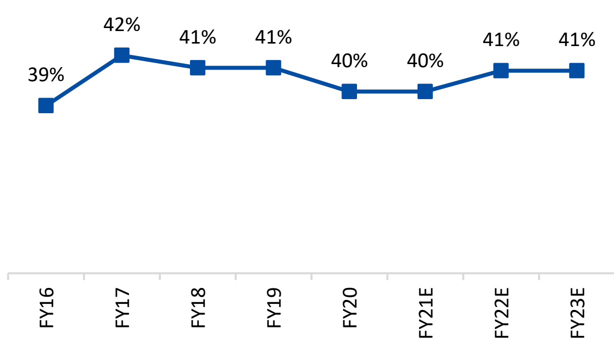


Exhibit 6: …growth in EBITDA …

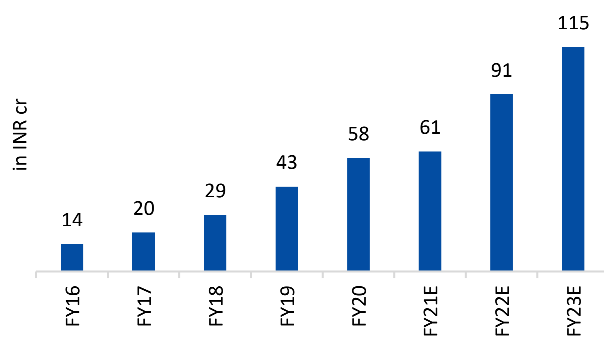


Exhibit 7: …and improvement in EBITDA margin.

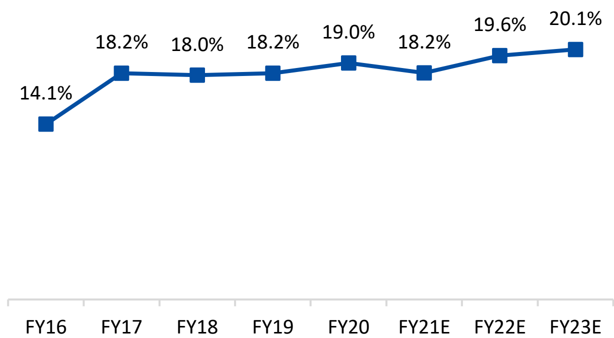


Exhibit 8: Total revenue to grow by 23% CAGR over FY20-23E…

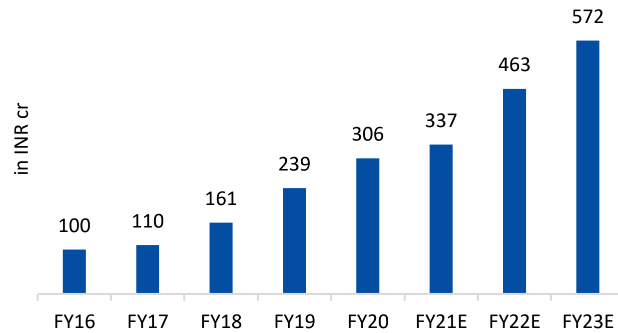


Exhibit 9: …with PAT growth rate of 32% p.a. over FY20-23E

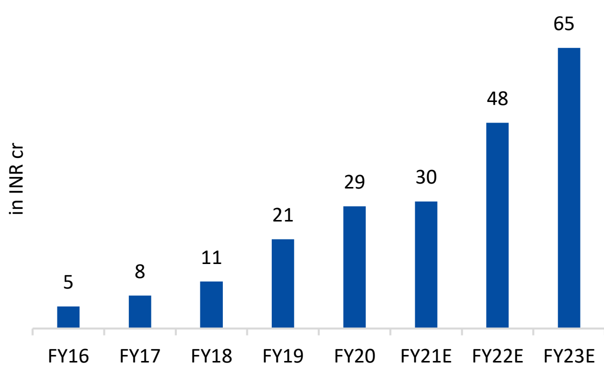
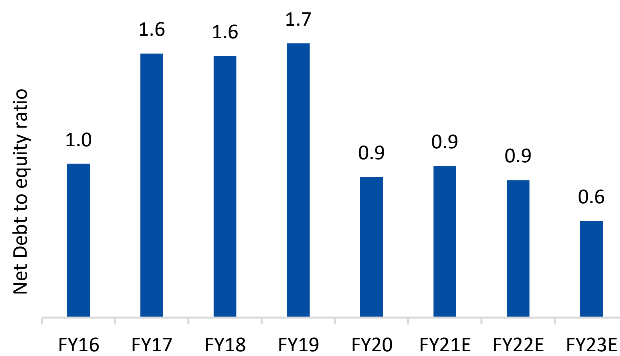
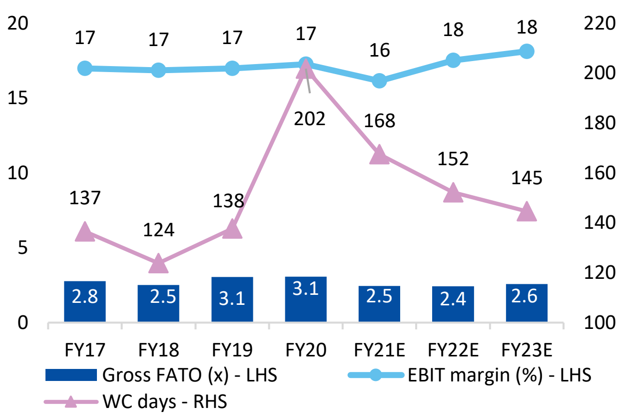


Exhibit 10: Better debt management…



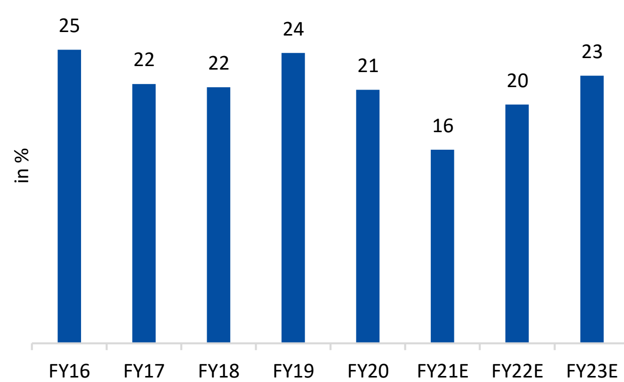
Note: Peak debt levels can go up to 1.2x SH's equity

Exhibit 11: …and improving business metrics…



Note: Management is focusing on shortening WC cycle. FATO: Fixed asset turnover

Exhibit 12: …will help improve ROACE profile going forward



Source: Company, Edelweiss Professional Investor Research

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I. Presence in niche chemistries with 15x opportunity size

a. Leading player in organic bromine/ inorganic lithium derivatives

Neogen is a leading manufacturer of bromine- and lithium-based specialty chemicals, which go into a host of end-user industries like pharma, agrochemicals, engineering liquids, electronic chemicals, aroma chemicals, flavours and fragrances, specialty polymers and cooling medium. With a marquee set of customers which include global innovators, Neogen is consistently moving up the technical curve through its R&D initiatives, particularly in the organic bromine derivatives segment. ***The company is slowly transitioning into a manufacturer of products with complex chemistry, with custom synthesis and manufacturing services***. We highlight Neogen's business in Exhibit 13.

Exhibit 13: Brief overview of Neogen's segments

	Organic chemicals			Inorganic chemicals
Segment	**Bromine derivatives**	**Advanced intermediates**	**Custom synthesis & manufacturing**	**Lithium derivatives**
Business description	This segment manufactures products comprising of bromine and other organic compounds containing chlorine, fluorine and iodine-based combinations. It also produces niche products such as Grignard reagents	Products under this segment are a combination of bromine compounds with other chemistries, which act as a value-added intermediates in APIs, agrochemical AIs and in speciality chemicals like aroma chemicals, polymer additives, etc	In custom synthesis, a product is developed and customised for a specific customer through in-house R&D. Under contract manufacturing, a product is produced for a single customer using process and technical specifications provided by the customer	Product portfolio in this segment consists of inorganic lithium compounds. The product offerings find application in vapour absorption machines (VAM), HVAC, refrigeration, construction chemicals, pharma and speciality polymer
FY20 Revenue (Revenue mix)	INR 249 cr (81%)			INR 58 cr (19%)
	~50%	~20%	~10%	
Number of products	180+			20+
Capacity pre-expansion	Glass lined: 130,400 Litre reactor capacity Non-glass lined: 24,000 Litres			1,200 MTPA
Capacity Expansion	Phase 1: 126,000 litre glass lined reactor capacity (commissioning: Q4FY21) Phase 2: 78000 litre glass lined; 32,000 litre non-glass lined (commissioning: FY22)			1,200 MTPA (Expanded in Q4FY20)
Capacity post expansion	Glass lined: 334,000 Litres Non-glass lined: 56,000 Litres			2,400 MTPA
Revenue potential post expansion	~INR 550-600 cr (Existing: ~INR 250 cr; Phase 1: INR 150-175 cr; Phase 2: INR 150-175 cr)			INR 90-100 cr (dependent on lithium prices)
End industries	Pharma, agrochemicals, electronic chemicals, aroma chemicals, flavours			HVAC, pharma, others
Key customers	Sun Pharmaceutical Industries, Hetero Drugs, Hikal, Mylan, Divi's Laboratories, Austin Chemical Company, Aurobindo Pharma			Thermax, Voltas, Kirloskar

II. Pioneer in Bromination in India

The company is one of the pioneers in the field of Bromination in India. Mr. Haridas Kanani, Neogen's Founder, Chairman and Managing Director, has been associated with bromine from around 1970 and is also known as the **Bromine Man of India**. He was instrumental in setting up one of India's first bromine plants using indigenous technology in Gujarat in the 1970s and has worked as a consultant to chemical companies for several years. (Refer to Exhibit 49 for details on management team).

Before he set up Neogen, Mr. Haridas Kanani started manufacturing bromine derivatives in Thane on a smaller scale with a 100 litre reactor capacity in the mid-80s. He founded Neogen in 1989. We highlight various milestones of Neogen's journey in Exhibit 14.

Exhibit 14: Neogen's major milestones

Initial phase

1989-97

- Incorporated in 1989, Neogen Chemicals Pvt Ltd commenced manufacturing of lithium salts and organobromine compounds in 1991
- First incremental capacity came in 1994, rising to 6,000 litres from 1,600 litres

R&D focus

1998-2000

- Through a special resolution approved by shareholders in 1998, the company was converted from private limited company to a public limited entity
- In 2000, the first dedicated R&D facility was set up at Mahape

Capacity expansion

2001-12

- Significant capacity expansion was undertaken in stages, raising total GLR capacity to 45,000 litres from 6,000 litres

Exploring new avenues

2012-15

- Around 2015, it acquired around 50,000 square metres of land at the Dahej Special Economic Zone (SEZ) to support growth in exports business

Inorganic growth

2016-18

- In December 2016, it acquired the manufacturing operations of Solaris Chemtech at Karakhadi, Vadodara, along with 40 acres land
- It also acquired 90% stake in partnership firm Dhara Fine Chem Industries
- In 2017, its Vadodara facility began manufacturing operations

Business diversification

2019-20

- In 2019, the company's CSM vertical began commercial operations for customers in Europe
- In 2019, Neogen successfully completed public issuance of shares
- In 2020, undertook capacity expansion in Inorganic Chemicals
- In 2020, inked two contracts with innovator companies

III. Organic Chemicals: Growth engine with large and growing opportunity size

a. Manufacturer of primarily specialty pharma and agrochemical intermediates

Neogen's **Organic Chemicals** business segment consists of organic compounds which are:

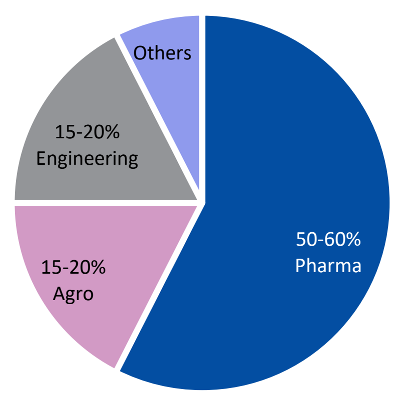
- **Derivatives of bromine** – e.g. alkyl bromides, dibromo alkanes;
- **Derivatives of bromine with combination of other halogen compounds** like chlorine, iodine etc – e.g. bromo chloro alkanes
- **Specialty chloro compounds**
- **Grignard reagents**

While Neogen has specialised in bromine chemistry, it also has expertise in other chemistries as mentioned above which may be required for developing molecules. However, its core specialisation and strategy towards customer acquisition is anchored on this bromination capability.

These compounds are mostly building blocks of products that go into various end-user industries, and hence are primarily intermediate in nature. For example, an organobromide named **n-propyl bromide** (which was earlier a key product for Neogen), is an intermediate that goes into Albendazole API and Profenophos AI in the pharma and agrochemical industries, respectively. ***This is a reason why we believe demand will remain strong and defensive in nature in Neogen's Organic Chemicals portfolio.***

For Neogen, pharma and agrochemicals are key end-user industries, contributing around 85% to its organic chemicals business. Other industries where its organic chemical products find use are electronic chemicals, aroma chemicals and flavours (refer Exhibit 15).

Exhibit 15: Neogen's exposure to end-user industries



Source: Company, Edelweiss Professional Investor Research

Most products in Neogen's basket generally have a global demand of under 2,000 MTPA. As apparent from the volume requirements, products are niche in nature and competition remains limited on the supply side. Neogen does not operate in areas where there is bulk requirement of bromine, such as flame retardants or oil field recovery, as bromine manufacturers generally forward integrate. Details of applications of Bromine are highlighted in section *<u>III.c. Organo-bromides are seeing demand from agrochemical and pharmaceutical innovators.</u>*

b. Sizeable opportunity aided by new product additions

Given the ***large plethora of specialty molecules that require bromination and find use in pharma and agrochemicals, the opportunity size for Neogen remains large*** (despite small market sizes of individual molecules). ***The management said the total opportunity size of products in its basket currently stands around INR 4,000 crore as compared to Neogen's FY20 turnover of around INR 249 crore.*** At current standpoint, we thus estimate it to be around ***15x opportunity size*** for Neogen**.**

Further headroom for growth will get created as Neogen develops additional products for its customers. A large share of this will come from advanced intermediates, as shown in Exhibit 16.

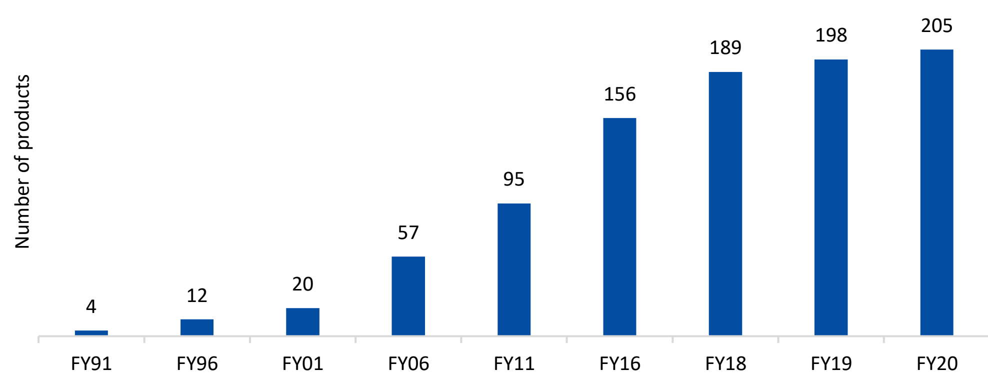
Exhibit 16: Development of complex products to increase opportunity size for Neogen

Product	Reaction steps	Realizations/kg	Share of portfolio	Opportunity size
Organobromides	1-2	USD 7-22	Large share currently	Current portfolio INR 4000 cr
Focus on innovation and ability to undertake complex chemistries driving product development				
Advanced Intermediates	Multiple steps	USD 20-100 or more	Increasing share with product development	New molecules can add INR 2,000-3,000 cr

Note: Realisations are indicative in nature. Source: Company, Edelweiss Professional Investor Research

Generally, new molecules contribute 8-10% of Neogen's annual turnover, excluding molecules developed for the custom synthesis business. Introduction of new products have been quite robust as visible in the increasing number of molecules (refer Exhibit 17), and Neogen is moving up the curve of undertaking more complex chemistries as illustrated in the next section - *IV. Moving up the curve through CSM and long-term contracts*.

Exhibit 17: Consistent expansion in Neogen's product portfolio



Note: This chart includes both Organic and Inorganic Chemical segments. However, the surge in new products have been driven by primarily Organic Chemicals, as Inorganic Chemicals segment has around 20 products.
Source: Company, Edelweiss Professional Investor Research

c. Organo-bromides are seeing demand from agrochemical and pharmaceutical innovators

Bromine is a versatile element and can be found in diverse array of natural objects. Bromine based derivatives find application in diverse end uses like flame retardants, pharmaceuticals, oil and gas, crop protection, water treatment among others. We illustrate those in Exhibit 18.

Out of these segments, Neogen is largely focused on specialty products which find application in agrochemical and pharmaceutical segments. Segments like flame retardants, oil and gas and water treatment chemicals are higher volume applications of Bromine.

Exhibit 18: Bromine sees application in diverse segments – Pharma and Agro being Neogen's key areas

Industry	Application
Flame retardant	• Used in electrical components as flame retardants • This is the largest application of bromine accounting for 48% global consumption in 2017 • Finds application in building and construction, electrical and electronics, furniture, upholstery and textile, and transportation • Key products include: Butadiene Styrene Co-polymer, Tetrabromobisphenol A – commonly known as TBBPA – used in electrical and electronic equipment
Oil and gas	• Clear brine fluids (CBFs) are used in oil recovery process • This accounted for 21% of 2017 global consumption of bromine derivatives • High density of CBFs help control extreme pressures in deep wells
Pharmaceutical	• ***Essential intermediates of variety of drugs*** in following therapies: – Pain relievers – Expectorants for cough medicines – Sleep aids, sedatives, anti-epileptics, tranquilizers – Medicine for heart problems – Thyroid hyperactivity – Hysteria – Experimental treatments for Alzheimer's disease, cancer and AIDS. • Used as catalyst in preparation of pharmaceutical products to speed up chemical reactions • Also used in **Grignard reagents** which are used for organic synthesis
Water treatment	• Used in purification of drinking water and account for 7% of global bromine consumption • Products used in this segment are brominated hydantoins and sodium/ ammonium bromides. • Bromine dissociates in water by forming hypobromous acid (HBrO) which has powerful disinfectant properties, due to its ability to kill the cells of many pathogens.
Crop Protection	• Several essential crop protection products are derived from Bromine • ***Modern active ingredients are increasingly seeing introductions of halogen*** (fluorine, chlorine, bromine and iodine), including mixed halogens that include one or more halogen atom with another.
Others	• Used in rubber (bromobutyl rubber), as antiknock additives in leaded gasolines, pollution control applications in power plant and in Electric Vehicles.

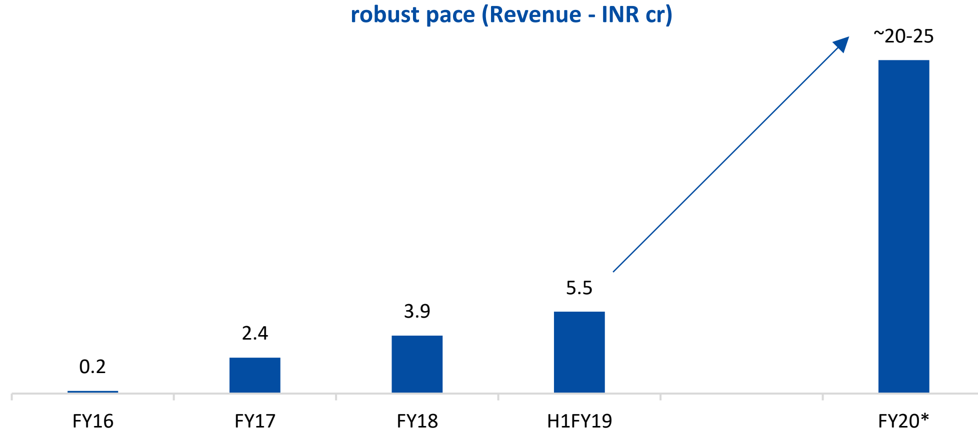
Note: Segments in which Neogen sees significant exposure are highlighted.

Source: Chemtura (Lanxess), BSEF, IHS Markit, Industry Reports, Edelweiss Professional Investor Research

IV. Moving up the curve through CSM and long term contracts

Being technocrats with strong background, Neogen promoters have been focusing on R&D quite early in the journey, with a lion share of the spends going towards Organic Chemicals. ***Neogen's first R&D centre was established at their Mahape site in the year 2000 and currently has two R&D centers, in Mahape and Vadodara.*** The management started focusing on advanced intermediates and the CSM business from FY16 and is in the process of scaling both businesses. Neogen's first commercial breakthrough in this business happened in FY19 with few products for European customers.

Exhibit 19: Contribution of CSM business to top-line has been growing at robust pace (Revenue - INR cr)



Note: *Estimated contribution of CSM segment. Management indicates that contribution of CSM business is ~8-10%.
Source: Company, Edelweiss Professional Investor Research

Advanced intermediates involve forward integration of organobromides with other chemistries to make intermediates which go into final molecules like APIs, AIs, specialty polymers, and electronic chemicals. Along with pharma, recent breakthroughs have been seen on the agrochemical side.

The company has developed expertise in CSM, thereby providing tailor-made products to customers, which largely includes innovators or players in their value chain. The molecules are more on the patented side.

Custom synthesis and advanced intermediates are estimated to currently contribute ~30% of revenue at the company level. The management aims to maintain at least the same mix when their greenfield capacity reaches optimal utilisation. It now has a couple of projects at the commercialised stage and few others in the pipeline. Few projects are in advanced stages of research and development.

We expect this segment to contribute more going forward, as Neogen has demonstrated by inking two long-term contracts, details of which are shown in Exhibit 20. ***Apart from these two contracts, the management are in talks with 4-5 customers for contractual commitment as well. We believe that there is substantial visibility on the outcome, that has led the management to commit an additional capex of INR 55 cr to be commissioned in FY22*** (over and above their INR 70 cr capex in the Organic Chemicals segment which is coming on stream in Q4FY21), which would be necessary to cater to both their existing molecules and the new contracts till FY23.

Exhibit 20: Neogen's long-term contracts for supplying advanced intermediates/custom synthesis

<table>
<tr><th>Contract</th><th>Customer</th><th>Duration</th><th>Contract details</th><th>Expected Revenue</th><th>Other details</th><th>Competition</th></tr>
<tr><td>LTC 1</td><td>Innovator</td><td>5 years</td><td rowspan="2">- Formula linked pricing implying gross margins would be stable

- Minimum quantity committed by customer

- Customers have option to take more volumes</td><td rowspan="2">Min. INR 30-50 cr p.a.</td><td rowspan="2">- In one contract concrete requirements are given for 2 years, and projections after that

- In another, total volume has been committed

- First commercial trial runs have started

- In some contracts, customer has done initial R&D and Neogen has contributed from kilo level to commercialization

- One project is under CSM

- Other includes one own molecule and another exclusive molecule</td><td rowspan="3">- In certain cases, Neogen is the first vendor

- In some cases, customer originally planned with Chinese competitor but later approached Neogen

- In some cases, customer was looking for second vendor and approached Neogen</td></tr>
<tr><td>LTC 2</td><td>Innovator</td><td>6 years</td></tr>
<tr><td>Others</td><td colspan="2">4-5 innovators</td><td colspan="3">- R&D stage is over and samples have been approved by customer

- In different stages: pilot trial in process, pilot completed etc. and customer taking decision on first commercial order

- All engagements are under CSM and advanced intermediates</td></tr>
</table>

Source: Company, Edelweiss Professional Investor Research

Benefiting from the 'China plus one' theme

Management commentary has highlighted that in cases Neogen has seen benefit of diversification of supply chain from China. As we highlighted in our thematic Catalytic Substitution in Play, we expect this theme to play out going forward, and R&D driven specialty chemicals manufacturers like Neogen to benefit from the trend.

We believe Neogen is in a sweet spot to capitalize on this opportunity, due to the following factors:

- **Presence in the niche chemistry of specialty bromine derivatives** – Bromination and specialty organobromides remain a niche industry as:

  a) ***Handling bromine is difficult owing to its corrosive nature, thus provide an entry barrier***. Bromination requires high degree of technical skills and expertise as it involves handling hazardous chemicals;

  b) Maintaining consistent quality remains paramount given that its products find use in regulated industries. This plays a key role in maintaining sticky customer relationships. ***Around 50% of Neogen's business accrues from customers with relationships spanning over a decade***, ***while 75% revenue is from those who have been purchasing from it for more than 5 years.*** Exhibit 21 shows Neogen's marquee set of customers.

Exhibit 21: Neogen's key customers in the Organic Chemical segment

Source: Company

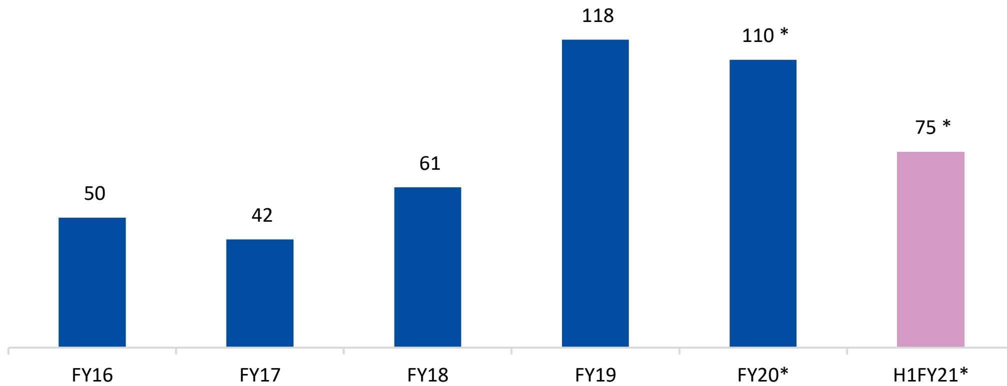
  c) Opportunity size of each specialty bromine derivative molecule, which players like Neogen manufacture, are relatively small compared to larger scale uses of bromines, thus making it ***unappealing from a capital employment point of view for manufacturers of bromine or bulk bromine derivatives***. However, overall opportunity size remains large given a large bouquet of products.

- **Focus on R&D** – Neogen has focussed on R&D from the start, with the function being led by Chairman and Managing Director Mr. Haridas Kanani. Promoters are technocrats (***Managing Directors Mr. Haridas Kanani and Dr. Harin Kanani are both alumni of IIT Bombay***) have a strong technical background. Its R&D department commenced operations in December 2001. Neogen also has an experienced individual ***Mr. Anurag Surana (ex-PI Industries)*** on board, who is driving the company's R&D agenda.

  Neogen currently has two R&D facilities, one each in Vadodara and Mahape, with ~10% of the company's manpower dedicated to R&D. The management has highlighted that almost 90% of R&D spends are focused on the organic chemicals segment.

- **Relationship with global customers –** As seen in Exhibit 22, Neogen is export focused, with 35-50% of its revenue accruing from exports over FY16-20. Neogen exports to ~27 countries, with its key markets being the US, Europe and Japan.

Exhibit 22: Neogen's export business has increased substantially over the years (Export revenue - INR cr)



Note: Neogen's Organic Chemical business comprise most of export revenue as Inorganic business is largely domestic. *Exports were impacted by lockdown in Q4FY20 and Q1FY21. Source: Company, Edelweiss Professional Investor Research

We expect Neogen's export trajectory to improve FY21 and onwards as management pursue overseas customers in the two segments as we discuss in below exhibit.

Exhibit 23: Neogen's export strategy

Segment	Strategy
Organic Chemicals	• Innovator customers in the CSM segment are largely based out of Europe and Japan • These customers are increasingly looking to outsource and India is a preffered destination • As CSM business and Advanced Intermediates business grows, Neogen's share of revenue from exports should go up
Inorganic Chemicals	• Current effort is to be second vendor for OEM's in the refrigeration space in Japan, China and Korea

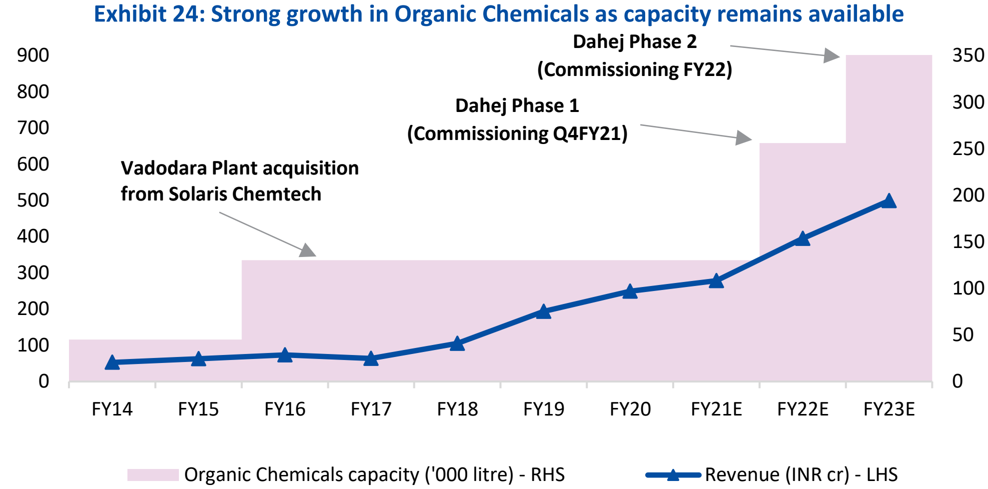
Source: Company, Edelweiss Professional Investor Research

V. Growth has been backed up by timely capacity expansions

a. Strong demand helps track Neogen's utilization of new capex

As we highlight in Exhibit 24, it is evident that the ***slack in the growth rate in this segment during prior periods has more to do with capacity constraints than demand, which has been quite robust.*** Management has been able to quickly utilize available capacities in the past. Neogen has seen strong growth and been ***able to increase its turnover in this segment by almost 4x over FY17-20 to INR 249 crore, aided by available capacity post the acquisition of the Vadodara facility***.

Exhibit 24: Strong growth in Organic Chemicals as capacity remains available



Source: Company, Edelweiss Professional Investor Research

The management is in the process of augmenting capacity. While this was earlier planned at their Vadodara site, ***Neogen is now undertaking construction at its Dahej site (which would bring in some tax advantages as it is located in a SEZ). Its organic chemicals business is significantly export oriented***, particularly future focus areas of advanced intermediates and custom synthesis.

The management is trying to time the commissioning of this facility with receipt of approvals. Initial commercial trials of the products to be manufactured will be available with Neogen by the time Dahej is ready, to start the larger scale commercial production. Commissioning of first phase is expected to happen in Q4FY21.

Additionally, management has announced capex of INR 55 cr for the second phase of Dahej capacity augmentation. This is being undertaken because a large part of the first phase capacity will get consumed in manufacturing of products under the two recently inked long-term contracts. Neogen would hence require additional capacity by FY22.

Exhibit 25: Dahej greenfield capacity expansion details

Phase	Capex (INR cr)	Revenue Potential (INR cr)	Commissioning timeline	Optimal Utilization
1	70	150-175	Q4FY21	2 years
2	55	150-175	FY22	2 years

Source: Company, Edelweiss Professional Investor Research

Dahej plant, in its first two phases, will add aggregate revenue of INR 300-350 cr, as optimal utilization gets achieved by FY24, with further capex decisions to be taken by Q3-Q4FY22. Neogen has enough land across Dahej and Vadodara for doing INR 1,000 cr business in each site, as per management. For example, Dahej has land and clearances for setting up four more multi-product plants, which should be sufficient to meet growth over the next few years. In Vadodara, Neogen has permission for additional volume of 1,500-2,000 MT, which again would take care of 5-7 years of growth.

b. Tailor-made facility to provide flexibility to operations

The Dahej organic facility will house a multi-product plant for manufacturing organobromide derivatives and advanced intermediates. The capacities being created factor in Neogen's pipeline of products and export enquiries from Japan and Europe.

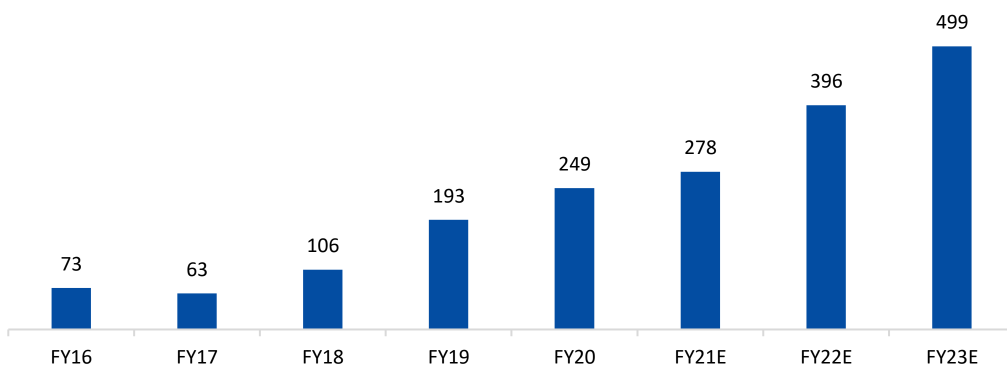
Dahej being a tailor-made plant would provide Neogen much better flexibility as compared to its older facility at Mahape or the acquired plant in Vadodara. This should usher in additional efficiencies in terms of process and working capital management.

c. Organic Chemicals segment to clock strong growth over FY20-23E

We expect Neogen to clock 26% revenue CAGR from the organic chemical segment over FY20-23E. Growth would have been higher without the current capacity constraints as its present facilities operate at optimum utilisation.

As new facilities for organic chemicals get commissioned in Q4FY21, we expect growth to pick up significantly over FY22-23E, aided by robust demand and ramp-up of available capacity.

Exhibit 26: Organic Chemicals segment likely to witness 26% CAGR in revenue over FY20-23E



Source: Company, Edelweiss Professional Investor Research

VI. Inorganic Chemicals to grow at high single digits

In the inorganic chemicals segment, Neogen manufactures lithium-based chemicals that find end-use in the HVAC industry, besides application in pharma, specialty polymers and construction chemicals. Neogen manufactures around 10 lithium derivatives, of which lithium bromide is its key product. This segment contributes ~20% of revenue. The business is seasonal in nature due to exposure to the HVAC industry, where demand is higher in the last quarter of the fiscal due to depreciation benefits.

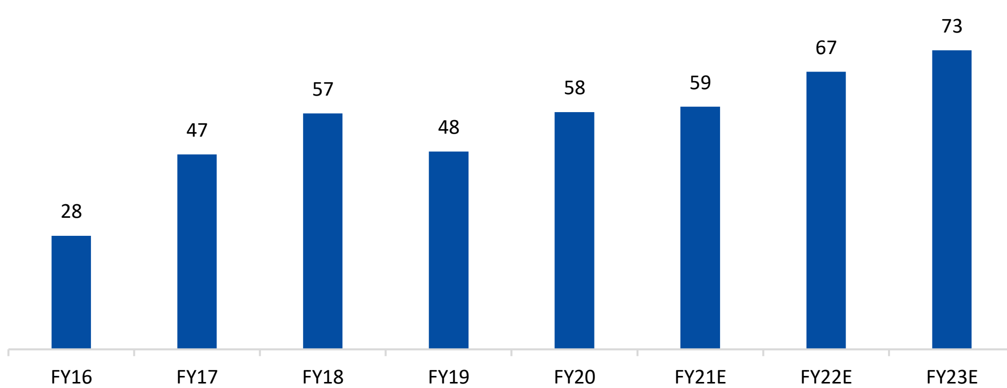
Lithium bromide is used in the refrigeration industry, where major original equipment manufacturers (OEMs) like Thermax, Voltas, and Kirloskar are its customers. The management is putting in all effort to be the second supplier to other OEMs in Japan, China and Korea. Other geographies to which Neogen exports its lithium derivatives are Europe, Middle East and the US.

The inorganic chemicals segment is enjoying some tailwinds off late. ***Use of the product in anti-viral (anti-HIV) drugs has increased off late due to the COVID-19 pandemic. Increasing capacity by customers in the engineering space and its success with overseas customers, along with approvals for its products from Dahej, will be the key growth drivers for the inorganic chemicals segment***.

However, the limited set of customers and products in this segment implies that growth will be largely tracking growth in the HVAC segment. Neogen plans to ramp up its recently commissioned capacity (in Q4FY20) over the next 3-4 years. Factoring this, we expect Neogen to be optimally utilising the new facility by FY24E, implying around 8% CAGR over FY20-23E (refer Exhibit 27).

Growth will be a factor of volume growth and realisations. While we expect Neogen's volume growth in this segment to clock around 12% CAGR over FY20-23E, weakening of lithium prices would have some impact on revenue growth. Lithium prices have softened off late (Exhibit 35).

Exhibit 27: Inorganic Chemicals revenue to increase by 8% CAGR over FY20-23E



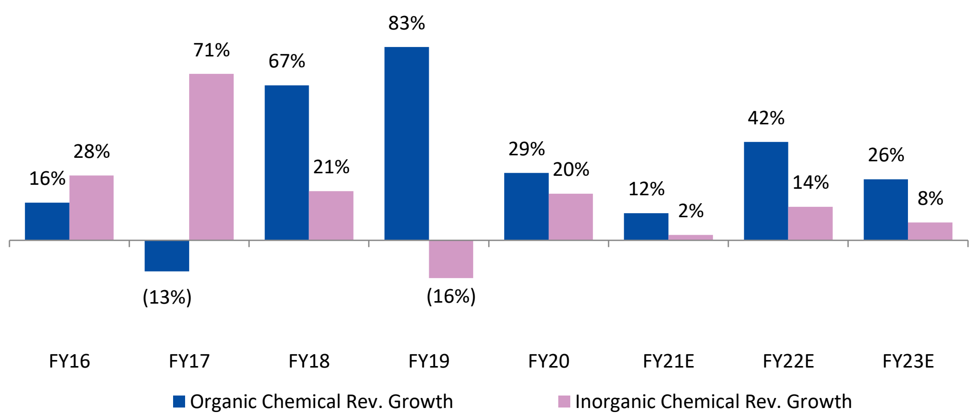
Source: Company, Edelweiss Professional Investor Research

VII. Revenue growth to be robust as Organic Chemicals capacity ramps-up

Neogen has seen consistent revenue growth over the last few years, with FY18-20 witnessing a high growth phase wherein its top line almost doubled (refer Exhibit 29). Revenue growth has been equally strong in both organic and inorganic chemicals as seen in Exhibit 28. While growth was partly constrained in FY20 and FY21 due to peak capacity utilisation (more so in the Organic Chemicals segment) and COVID-19 related lockdowns (which led to demand contraction in the Inorganic Chemicals segment), we expect it to resume strongly from FY22E onwards as organic capacity gets commissioned.

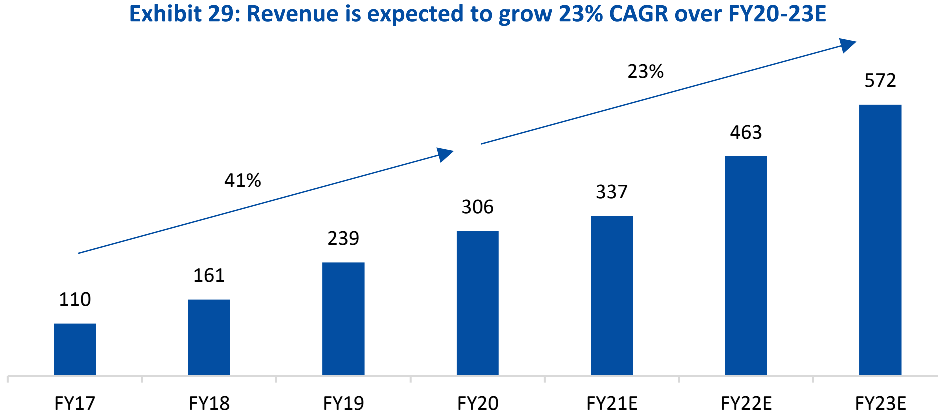
Over FY20-23E, we expect Organic Chemical and Inorganic Chemical segment revenues to grow by 26% and 8% CAGR, respectively, as highlighted previously. Consequently, we expect headline revenue to grow by 23% CAGR over FY20-23E.

Exhibit 28: Robust growth visible in both segments for FY22 and FY23



Source: Company, Edelweiss Professional Investor Research

Exhibit 29: Revenue is expected to grow 23% CAGR over FY20-23E



Source: Company, Edelweiss Professional Investor Research

VIII. Higher share of value added products to aid margin expansion

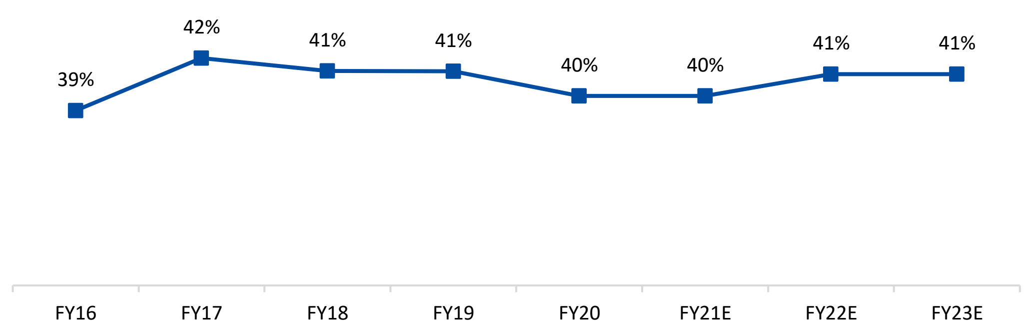
a. Stable gross margin denotes its ability to pass-on raw material volatility

Neogen's gross margin has been stable over FY16-20, staying in the range of 39-42% as shown in Exhibit 30. Longer-duration contracts while raw material sourcing and ability to pass on any volatility in raw material pricing has aided this stability, which ***we also expect to continue and improve as product mix increases towards higher value-added products.***

The company primarily has 4 types of raw materials: a) Bromine; b) Lithium; c) Organic raw materials; and d) Inorganic acids, as we highlight in Exhibit 31.

The company's dependence on China as a raw material source is minimum, with alternatives available for most products.

Exhibit 30: Gross margin to stabilize in line with current operating levels



Source: Company, Edelweiss Professional Investor Research

Exhibit 31: Details of Neogen's raw material procurement arrangements

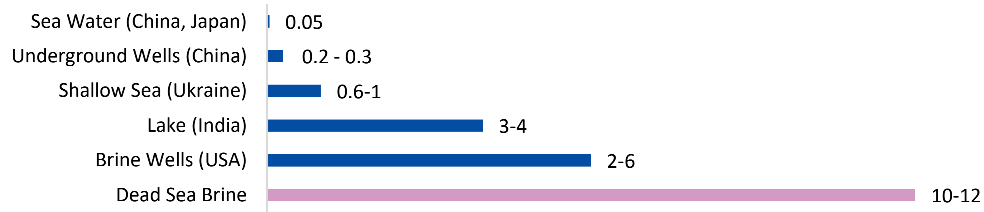
Raw material	Form	Supplier	Contracts	Others
Bromine	Liquid Bromine or Hydrobromic acid	Domestic and International Manufacturers	**Suppliers:** Annual contracts **Customers:** Formula linked contracts	Maintains some inventory to avoid supply side disruption
Lithium	Lithium carbonate and lithium hydroxide	Imported from Chile and Argentina	**Suppliers:** Earlier used to do annual contracts, but with weakening lithium prices has moved to quarterly contracts **Customers:** Formula linked contracts	Maintains some inventory to avoid supply side disruption
Others	Organic raw materials (petro chemicals, solvents, organic acids, alcohols aromatic compounds) and inorganic acids	Domestic and International manufacturers	-	-

Source: Company, Edelweiss Professional Investor Research

b. Global Bromine mining landscape: Chinese capacities have reduced

As outlined in USGS Minerals Yearbook, *Bromine is found principally in seawater, evaporitic (salt) lakes, and underground brines associated with petroleum deposits. The Dead Sea, in the Middle East, is estimated to contain 1bn MT of bromine. Seawater contains about 65 parts per million of bromine, or an estimated 100trn MT. Bromine is also recovered from seawater as a coproduct during evaporation to produce salt.*

Exhibit 32: Bromine concentration by source (in g/l)



Source: ICL

Israel and Jordan are the largest sources of bromine globally due to their proximity to the Red Sea. Other leading producers are United States, China and Japan. In India, Rann of Kutch is a source of bromine. We highlight countries with leading reserves of Bromine in Exhibit 33 and 34. India's bromine production was estimated to be around 50,000 TPA of liquid bromine in 2019.

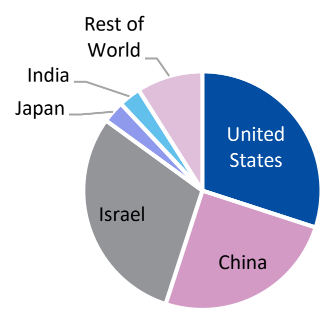
Exhibit 33: Bromine estimated world reserve by country (in MT)

Country	Reserves
United States	11,000,000
Azerbaijan	3,00,000
Israel	Large
Jordan	Large

Note: China and Japan have not been included in table as reserve data is not available.
Source: USGS Minerals Yearbook, Edelweiss Professional Investor Research

China's capacity has reduced in 2018 and 2019 as many bromine facilities in the Shangdong Province, particularly small-scale ones, remains closed for not being able to meet new environmental regulations. ***This has led to higher prices of Bromine***. However, in the face of growing demand, Jordan is expanding production capacity.

Exhibit 34: Bromine world production contribution by country



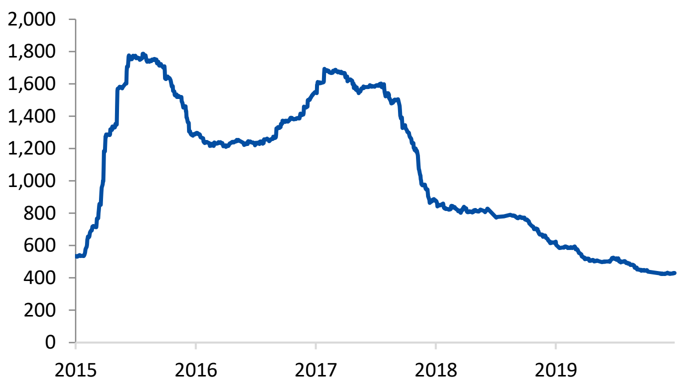
Source: Satyesh Brinechem

c. Global Lithium mining landscape: Capacity on a downcycle as lithium prices soften

Lithium is generally mined from two form of minerals – Lithium Carbonate and Lithium Hydroxide. Traditionally, lithium carbonate has been sourced from Brines (concentrated salt water with high lithium content – ~60% of global capacity in 2017), and lithium hydroxide from hard rock spodumene (~40% of global capacity in 2017).

Chile and Argentina (which has ~45% global reserves) primarily have brine based sources, while Australia (which has ~40% global reserves) are spodumine based. 2017 saw rapid increase in production capacity in Australia where ~4x spodumene was produced and shipped to China for processing. With large increase in capacity, 2017 marked the peak of lithium price cycle (Exhibit 35).

Exhibit 35: Lithium prices have softened in recent times (INR/kg)



Note: China lithium carbonate prices; Source: Bloomberg

Exhibit 36: Lithium world reserves (in MT)

Country	Reserves
Australia	6,28,00,000
Chile	86,00,000
Argentina	17,00,000
Other	11,00,000
China	10,00,000
United States	6,30,000
Canada	3,70,000
Zimbabwe	2,30,000
Brazil	95,000
Portugal	60,000
World	**1,70,00,000**

Source: USGS Minerals Yearbook

Lithium prices have been on a downtrend as demand was lower than anticipation

While global consumption of lithium has increased in double digits in 2019, it was lower than anticipated by the lithium industry. This was due to (a) scale-back of the electric vehicle (EV) subsidy in China; leading to (b) lower EV sales volumes; and (c) consequent reduction in inventories.

This led to reduction in global production (Exhibit 37 highlights that Australia, a leading source saw substantial reduction in mine production), and a moderation in spot prices. This trend could continue for some time as excess capacity gets used.

Exhibit 37: Lithium world mine production by country (in MT)

	2016	2017	2018	2019
Argentina	5,800	5,700	6,400	6,400
Australia	14,000	40,000	58,800	42,000
Brazil	200	200	300	300
Canada	-	-	2,400	200
Chile	14,300	14,200	17,000	18,000
China	2,300	6,800	7,100	7,500
Portugal	400	800	800	1,200
Zimbabwe	1,000	800	1,600	1,600

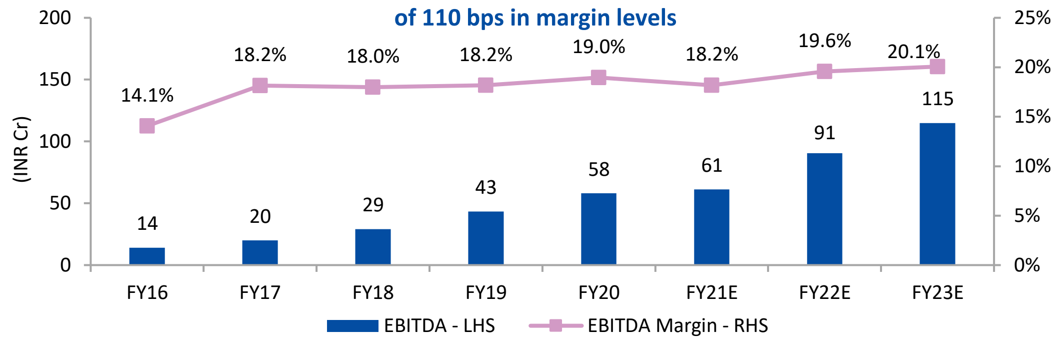
Note: United States has not been included in table as production data is not available.
Source: USGS Minerals Yearbook, Edelweiss Professional Investor Research

d. Margin expansion to reflect value addition

With new organic capacity in place, the management plans to focus on complex products, where there is scope to innovate, which would result in higher value addition to the molecules. ***We see the possibility of custom synthesis and contract research and manufacturing systems (CRAMS) business developing strongly from FY22 onwards.***

As a result of this change in product mix towards higher value-added products, we expect Neogen's margin profile to improve over FY22-23E. As shown in Exhibit 38, the company has steadily improved its EBITDA margin to ~19% in FY20 from ~14% in FY16. We factor in further expansion from FY20 levels over the next 3 years. ***The management has historically guided EBITDA margin in the 17.5-19.5% range, while sharing the aspiration to cross 20% levels in the future, which we think can be achieved by FY23E, as Dahej plant with modern technologies also brings in higher efficiencies.***

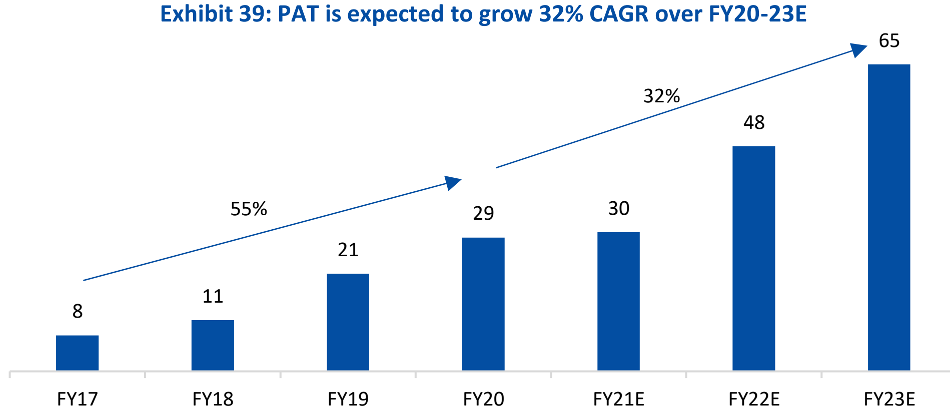
Exhibit 38: EBITDA may increase 26% CAGR between FY20-23 with an increase of 110 bps in margin levels



Source: Company, Edelweiss Professional Investor Research

As Neogen's Dahej capacity ramps-up, we expect fixed cost absorption to further aid bottom-line profitability. Additionally, Dahej being a SEZ, Neogen will enjoy tax advantages on their export income. ***We expect these factors to help PAT compound at 32% CAGR between FY20-23E.***

Exhibit 39: PAT is expected to grow 32% CAGR over FY20-23E



Source: Company, Edelweiss Professional Investor Research

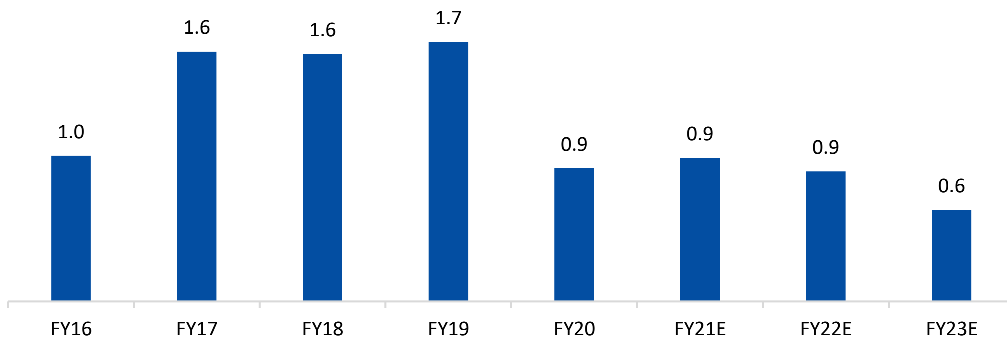
IX. Focus on strengthening Balance Sheet to improve cash generation

a. Management intends to keep debt levels under 1x equity over the medium term

To fund acquisition and develop the Vadodara facility, debt in Neogen's books increased over FY16-19. Working capital intensive operations had resulted in an increase in WC-related debt as the company experienced rapid growth (3x revenue surge between FY16 and FY19).

While previous debt (INR 22 crore of term loans and INR 12 crore of preference shares) has been repaid from proceeds of the initial public offering (IPO), we expect its debt profile to remain elevated yet under control as the company continues to witness strong growth. ***We expect peak debt to be around INR 200 crore, which would take Neogen's debt-to-equity ratio to around 1x in FY22E, with a peak level of 1.2x as guided by the management.***

Exhibit 40: Net debt-to-equity ratio to improve going forward



Source: Company, Edelweiss Professional Investor Research

b. Expect improvement in working capital

Neogen's inventory days have been historically elongated on account of the nature of business. We highlight below the key reasons for the same.

- **Raw material inventory management** – Neogen holds a few weeks inventory for its key raw material to avoid any supply-side challenges and to meet customer commitments. This was evident in the recent lockdown where operations of the in-demand pharma/agro-intermediates in the organic chemicals business remained largely unaffected.
- **Lithium sourcing –** Lithium is sourced from Chile and Argentina, where the transit time adds to the WC cycle.
- **Finished goods inventory management –** The company maintains some product inventory in a semi-finished state for final blending.
- **Changeovers in reactors** – Fungible plants however add to the WC cycle as change in product involves a cleaning process.

Neogen's management intends to move closer to the industry standard of 90-100 days WC cycle.

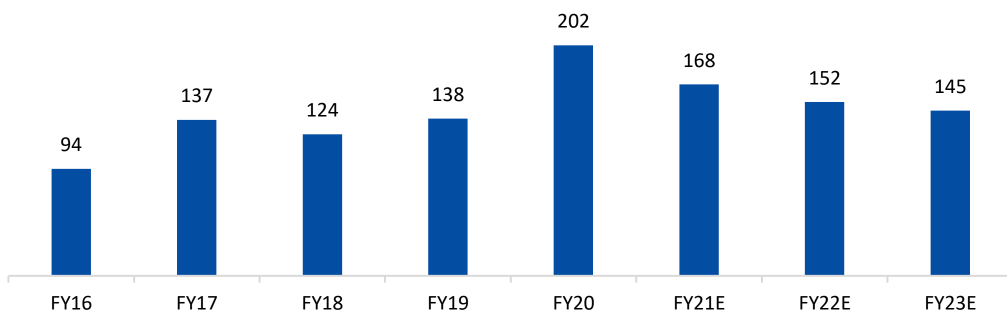
Exhibit 41: Various levers management is pressing to improve WC days

Lever	Details
Inventories	▪ ***Dedicated reactors for larger molecules*** at the new facility will reduce changeover time (revenue contribution from larger molecules have increased over time, with 7-8 molecules contributing in excess of INR 10 crore). ▪ ***Better visibility from international customers*** will help in demand forecasting which would aid in better planning of capacity usage. ▪ Longer term contracts with customers will provide better visibility.
Debtors	▪ Better payment terms when negotiating new contracts, which is expected to ease debtor days.
Creditors	▪ Receiving longer credit term with key vendors ▪ Creditors are also getting bill discounted by bankers and hence are willing to the longer credit terms

Source: Company, Edelweiss Professional Investor Research

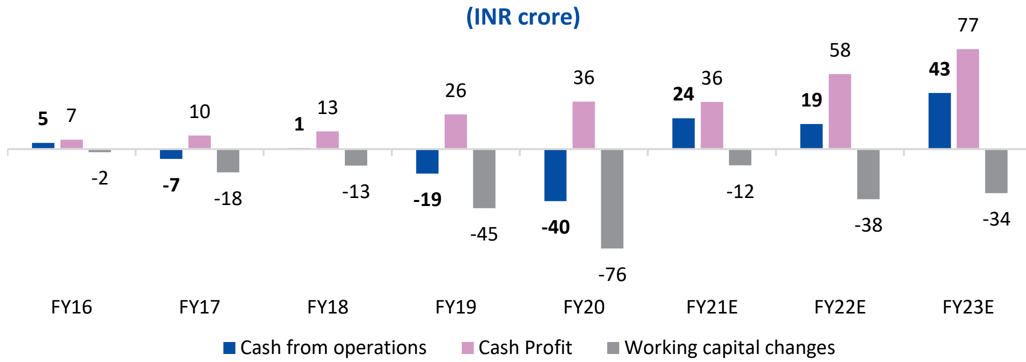
While FY20 WC cycle was stretched due to COVID-19 related circumstances, we expect the company to gradually reduce the WC cycle to its previous range of 135-140 days and lower. As shown in Exhibit 42, we have conservatively factored WC cycle to improve to 145 days over FY20-23E. This will help Neogen in generating cash from operations as highlighted in Exhibit 43.

Exhibit 42: Working capital cycle to improve going forward (in days)



Source: Company, Edelweiss Professional Investor Research

Exhibit 43: Improving WC cycle and cash profits to aid cash flow generation (INR crore)

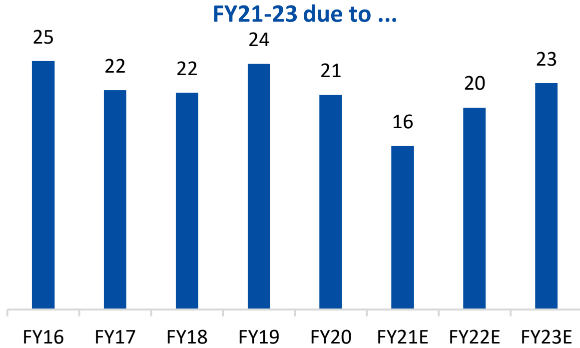


Source: Company, Edelweiss Professional Investor Research

c. ROAE and ROACE to improve with higher profitability, higher utilization and shorter WC cycle

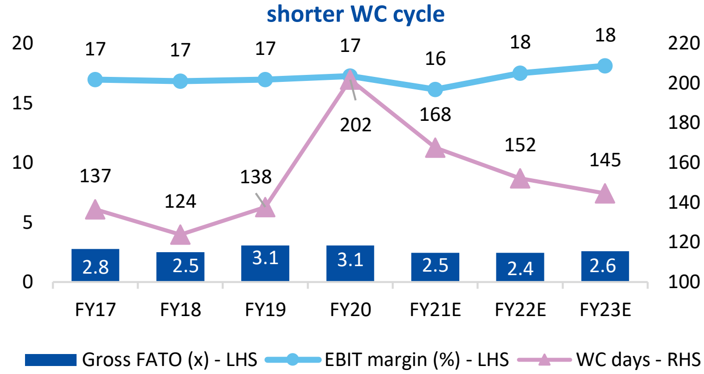
We expect Neogen's ROAE and ROACE to improve over FY21-23. The key underlying driver is improvement of profitability (110/213 bps improvement in EBITDA margin/PAT margin over FY20-23E) and ramp-up in utilization that would help in improving asset turnovers. Furthermore, better leverage ratio and a reduction in working capital cycle would help record improvement ROAE and ROACE respectively over FY21-23. We illustrate this in Exhibit 44, 45, and 46.

Exhibit 44: ROACE (%) to improve over FY21-23 due to ...



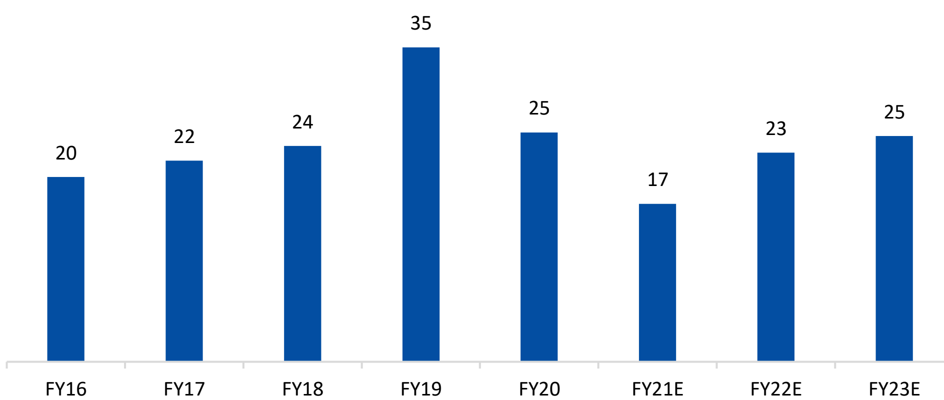
Source: Company, Edelweiss Professional Investor Research

Exhibit 45: .. better profitability, higher FATO and shorter WC cycle



Source: Company, Edelweiss Professional Investor Research

Exhibit 46: ROAE (%) to improve over FY21-23E



Source: Company, Edelweiss Professional Investor Research

X. Initiate coverage with a BUY recommendation

Neogen's share price has had a robust run and has returned ~140% since its listing in May 2019. Post listing, over the last six quarters, the company has demonstrated its strength in incremental business wins, R&D capabilities and transitioning towards the advance intermediates and CSM segments.

Owing to the consistent delivery, we remain positive on Neogen, and believe that it can evolve into a strong CSM player over a longer time horizon. Hence, in Exhibit 47, we compare Neogen's few parameters (related to valuation, growth, profitability and balance sheet) with established specialty chemicals players, including players like Navin Fluorine International and PI Industries, who run successful CRAMS/CSM businesses which are significant contributors to their earnings.

Exhibit 47: Comparison of valuation parameters of Neogen and listed chemical stocks

Company	Rating	Market Cap (INR cr)	FY22 P/E (x)	FY23 P/E (x)	FY22 EV/EBITDA (x)	FY23 EV/EBITDA (x)	PEG (x)	Revenue FY20-23E CAGR (%)	PAT FY20-23E CAGR (%)	FY22 EBITDA Margin (%)	FY23 EBITDA Margin (%)	FY22 ROE (%)	FY20 Net D/E
						Peer set							
Aarti Industries	Not Rated	19,394	27.8	21.5	16.5	13.5	1.9	18.0	18.9	23.4	23.5	18.5	0.7
Fine Organics	Not Rated	7,651	36.3	29.4	24.3	20.5	2.8	15.6	16.5	22.1	22.7	25.5	-0.2
Galaxy Surfactants	Not Rated	6,764	22.4	19.6	14.6	12.9	2.0	11.1	14.4	15.1	15.2	21.5	0.3
Navin Fluorine	BUY	12,976	44.1	29.8	31.4	21.0	2.2	26.1	30.9	28.2	29.1	16.3	-0.2
PI Industries	Not Rated	33,718	34.8	29.1	25.4	21.1	2.3	24.5	32.2	23.6	23.6	16.6	0.1
Rossari Biotech	BUY	4,206	40.0	29.9	25.4	19.7	2.2	22.4	29.1	18.8	19.3	25.0	-0.2
SRF	BUY	29,968	23.1	20.2	14.8	12.9	2.2	13.9	13.4	23.8	23.9	19.8	0.8
Vinati Organics	Not Rated	12,066	32.5	25.0	23.7	18.1	2.8	19.3	13.1	37.1	37.4	22.7	-0.2
Neogen	**BUY**	**1,467**	**30.6**	**22.4**	**18.4**	**14.3**	**1.6**	**23.2**	**31.9**	**19.6**	**20.1**	**23.0**	**0.9**
Average	-	-	32.6	25.6	22.0	17.5	2.3	-	-	-	-	-	-
CRAMS focused avg	-	-	39.5	29.4	28.4	21.0	2.2	-	-	-	-	-	-

Note: CRAMS focused peers are highlighted. Source: Bloomberg consensus, Edelweiss Professional Investor Research

As we can observe from Exhibit 47, on a PEG basis, Neogen's listed peers are trading at an average multiple of 2.3x, while CRAMS-focused peers are trading at a PEG multiple of 2.2x. Compared to the peer-set, despite higher FY20-23E growth expectation in most cases, Neogen is trading at a PEG multiple of 1.6x.

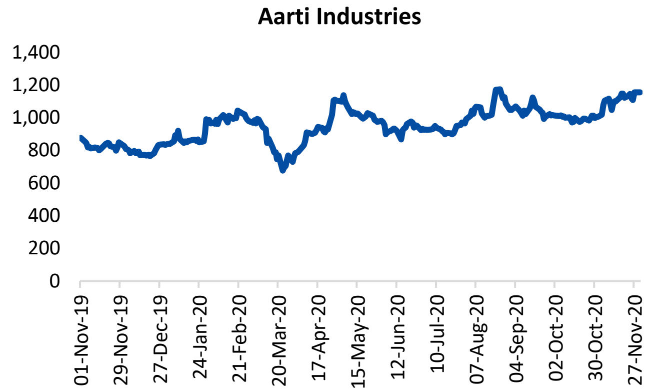
We initiate coverage on Neogen Chemicals Ltd with a BUY recommendation and a target price of INR 758 (resulting in an upside of 22%), valuing the company at 27x its FY23E earnings. The multiple has been arrived at factoring in the growth potential of the company, while also keeping in mind the risks that emanate from a leveraged balance sheet and a long working capital cycle. At this target price, the PEG multiple for Neogen would be at 1.9x, which is still at discount to peer set average and CRAMS/CSM focused players.

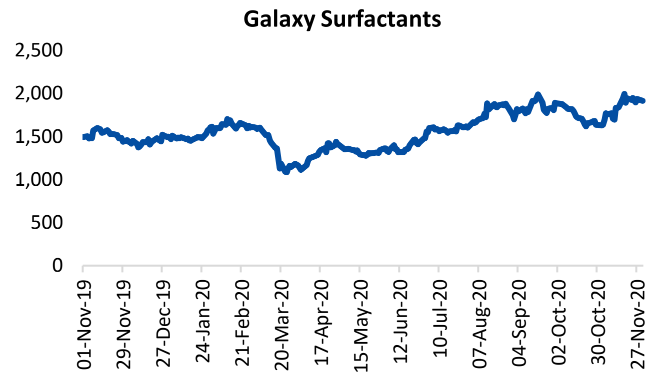
Risks to our investment thesis:

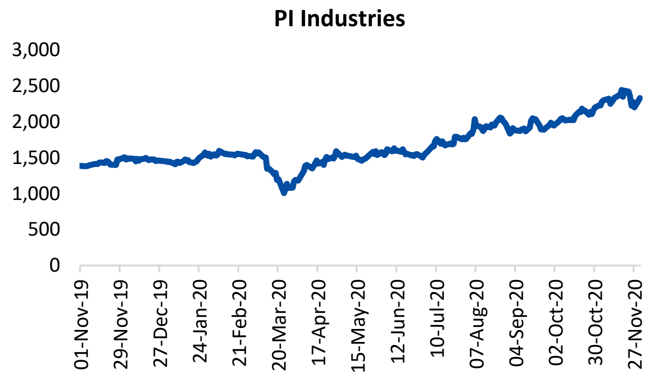
1. **Stretched working capital cycle** - The company has a long working capital cycle which the management has focused on shortening to comparable levels of peers. The reduction in the working capital cycle remain a key parameter for future operating cash generation and would play a key role in improving balance sheet strength. On the other hand, if this does not transpire, it could impact risk perception of the company and impact market valuations.

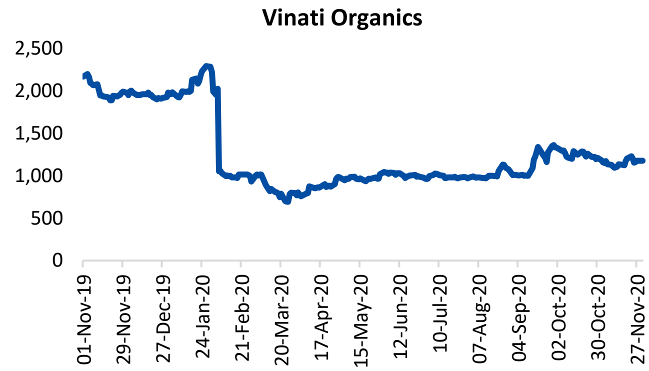
2. **Delay in ramp up of new capacities** – Neogen's greenfield capexes in the Organic Chemical segment are expected to see optimal utilization in the next 2-3 years, driven by strong demand and inking of long-term contracts. Any delay related to the ramp-up would result in lowering of earnings expectations and could impact market multiples, which factor in strong growth in earnings.

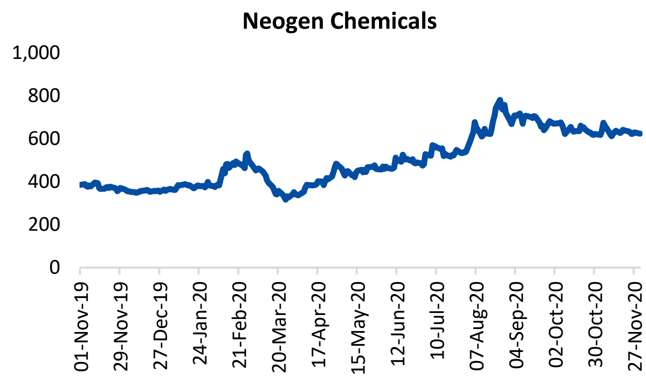
Exhibit 48: 1-year stock price performance chemical companies

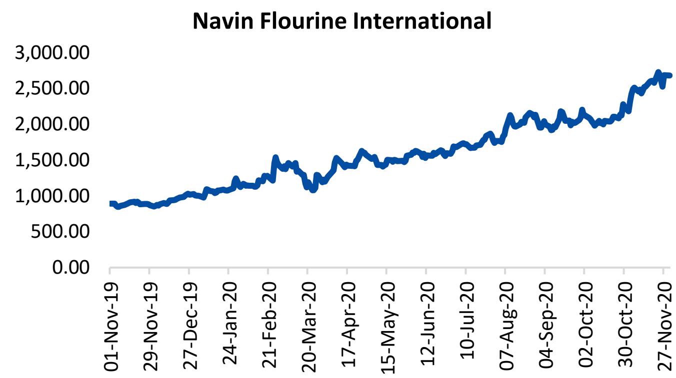


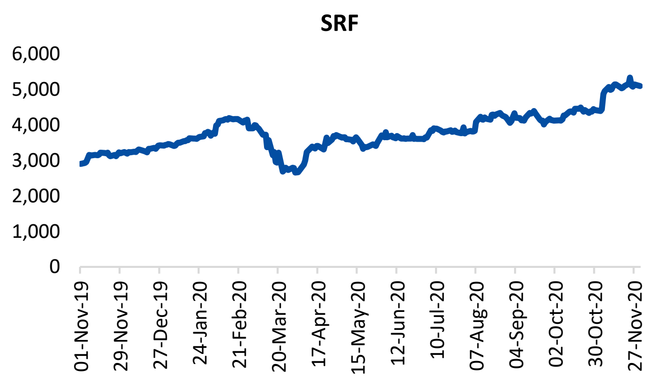


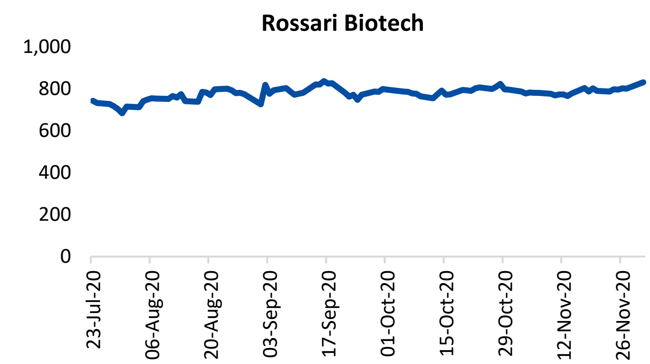












Source: Bloomberg, Edelweiss Professional Investor Research

Exhibit 49: Management team at Neogen Chemicals Ltd.

Name	Designation	Profile
Haridas Thakarshi Kanani	*CMD*	As Chairman and Managing Director of the company, Mr. Haridas Kanani, looks after manufacturing, research and development, general operations and management of various manufacturing units. After working with Excel Industries and setting up Chem Ocean Industries, India's first indigenous Bromine plant at Navalakhi, Gujarat, he started Chem Ocean Consultant, providing consultancy, engineering technologies to set up Bromine plants. In 1985, he founded Prachi Chemicals, to manufacture organic and inorganic bromides, which was later, in 1989, was incorporated as Neogen Chemical Ltd. He holds bachelor's degree in chemical engineering, from IIT, Mumbai.
Dr. Harin Haridas Kanani	*Joint MD*	Dr. Harin Kanani, oversees various business divisions such as research and development, business development, quality control, purchase, marketing and finance. He is bachelor of chemical engineering from IIT, Mumbai and also holds master's degree and a doctorate in chemical engineering from the University of Maryland. After working with companies like Asian Paints India Limited and Pioneer Hi-Bred International Inc. in the United States, he joined Neogen Chemicals Ltd in 2008 as a general manager and took over as Joint MD in 2017.
Ketan Vyas	*CFO*	Mr. Ketan Vyas, has been recently appointed as CFO in October 2020. Earlier, he worked as a Group CFO at Batliboi Ltd. and was previously associated with companies like Arcelor Mittal Projects India Pvt. Ltd., SGS India Pvt. Ltd., Dow Corning India Pvt. Ltd., Rhodia Chemicals India Pvt. Ltd. and Amplas Polymers Pvt. Ltd. He has gathered expertise in Strategic Planning, Budgeting & Cost Control, Financial Reporting & Management, System Integration and Solution Design during his 22 years of experience. He is a member of ICAI and completed Masters in Business Administration.
Shyamsunder Upadhyay	*ED (Operations)*	Executive Director, Mr. Shyamsunder Upadhyay, oversees maintenance, projects, logistics, administration and engineering store of the company. During his tenure of 41 years in the industry, he worked at various companies such as Savita Chemicals, Wimco, Gharda Chemicals, Clariant India, Tytan Organics Limited, Arch Pharmalabs Limited and Laxmi Organic Industries Limited. He holds a master's degree in science from Vikram University, Ujjain.

Income statement (INR Cr)

Year to March	FY19	FY20	FY21E	FY22E	FY23E
Income from operations	239	306	337	463	572
Total operating expenses	196	248	276	372	457
EBITDA	43	58	61	91	115
Depreciation and amortisation	3	5	7	10	11
EBIT	41	53	54	81	104
Interest expenses	12	12	15	20	20
Profit before tax	29	41	40	62	84
Provision for tax	8	12	10	14	18
Core profit	21	29	30	48	65
Extraordinary items	0	0	0	0	0
Profit after tax	21	29	30	48	65
Adjusted net profit	21	29	30	48	65
EPS (INR) basic	10.5	12.3	12.7	20.6	28.1
Diluted shares (Cr)	2.0	2.3	2.3	2.3	2.3
EPS (INR) fully diluted	10.5	12.3	12.7	20.6	28.1

Common size metrics as a % of net revenue

Year to March	FY19	FY20	FY21E	FY22E	FY23E
Operating expenses	81.8	81.0	81.8	80.4	79.9
Depreciation	1.2	1.7	2.0	2.1	1.9
Interest expenditure	5.0	3.9	4.4	4.2	3.5
EBITDA margins	18.2	19.0	18.2	19.6	20.1
Net profit margins	8.8	9.4	8.8	10.4	11.5

Growth metrics (%)

Year to March	FY20	FY21E	FY22E	FY23E
Revenues	28.1	10.1	37.4	23.5
EBITDA	33.7	5.5	47.9	26.7
PBT	40.6	(3.3)	55.2	36.4
Net profit	36.8	3.5	61.8	36.4
Earnings per share	17.5	3.5	61.8	36.4

Financials

Balance Sheet (INR Cr)

Year to March	FY19	FY20	FY21E	FY22E	FY23E
Equity share capital	20	23	23	23	23
Reserves & surplus	50	133	162	209	272
Shareholders' funds	70	156	185	232	296
Total Debt	120	137	175	199	178
Deferred Tax Liabilities (net)	5	6	7	7	7
Minority interest	0	0	0	0	0
Sources of funds	**195**	**299**	**368**	**438**	**481**
Gross block	88	113	163	218	228
Depreciation	(5)	(9)	(15)	(25)	(36)
Net block	83	104	147	193	191
Capital work in progress	0	3	20	5	10
Total fixed assets	83	107	167	198	201
Other Non Current Assets	0	0	0	0	0
Investments	1	1	0	0	0
Inventories	72	130	136	170	206
Sundry debtors	61	75	80	108	125
Cash and equivalents	2	1	2	4	9
Loans and advances	0	0	0	0	0
Other current assets	25	24	45	45	45
Total current assets	160	231	264	327	386
Sundry creditors and others	43	36	62	85	105
Provisions and other current liabilities	5	7	1	1	1
Total CL & provisions	47	43	63	86	106
Net current assets	112	188	201	241	280
Misc expenditure	(1)	(3)	(1)	(1)	(1)
Uses of funds	**195**	**299**	**368**	**438**	**481**
Book value per share (INR)	35	67	79	99	127

Cash flow statement

Year to March	FY19	FY20	FY21E	FY22E	FY23E
Net profit	21	29	30	48	65
Add: Depreciation	3	5	7	10	11
Add: Misc expenses written off	2	2	(2)	0	0
Add: Deferred tax	1	1	1	0	0
Gross cash flow	26	36	36	58	77
Less: Changes in W. C.	45	76	12	38	34
Operating cash flow	(19)	(40)	24	19	43
Less: Capex	18	29	67	40	15
Free cash flow	(36)	(69)	(44)	(21)	28

Ratios

Year to March	FY19	FY20	FY21E	FY22E	FY23E
ROAE (%)	35	25	17	23	25
ROACE (%)	24	21	16	20	23
Debtors (days)	93	90	87	85	80
Debt/Equity	1.7	0.9	0.9	0.9	0.6
Inventory (days)	111	155	147	134	132
Payable (days)	65	43	67	67	67
Cash conversion cycle (days)	138	202	168	152	145
Debt/EBITDA	2.8	2.4	2.9	2.2	1.6
Adjusted debt/Equity	1.7	0.9	0.9	0.9	0.6

Valuation parameters

Year to March	FY19	FY20	FY21E	FY22E	FY23E
Diluted EPS (INR)	10.5	12.3	12.7	20.6	28.1
Y-o-Y growth (%)		17.5	3.5	61.8	36.4
Diluted P/E (x)	59.6	50.8	49.1	30.3	22.2
Price/BV(x)	17.8	9.3	7.8	6.3	4.9
EV/Sales (x)	5.7	5.2	4.8	3.6	2.8
EV/EBITDA (x)	31.5	27.4	26.6	18.2	14.2
Basic EPS	10.5	12.3	12.7	20.6	28.1
Basic PE (x)	59.6	50.8	49.1	30.3	22.2

Neogen Chemicals Ltd

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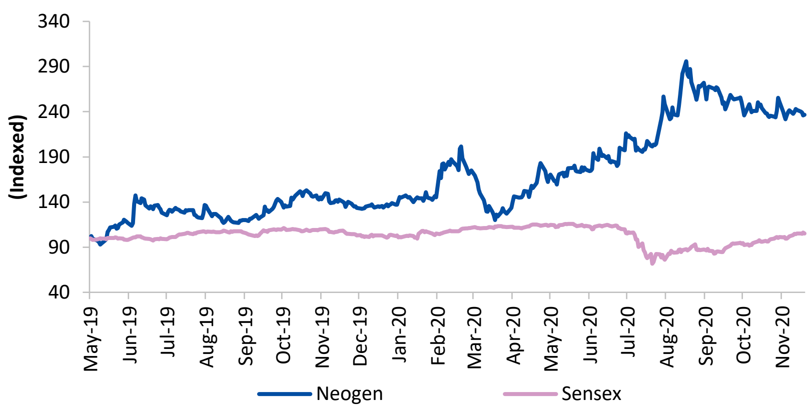
Rating	Expected to
BUY	appreciate more than 15% over a 12-month period
HOLD	appreciate between 5% and 15% over a 12-month period
REDUCE	return below 5% over a 12-month period



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