Chemicals 2.0

Further deep dive into the sector…

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Jiangsu Blast – China situation becoming more volatile (1/2)

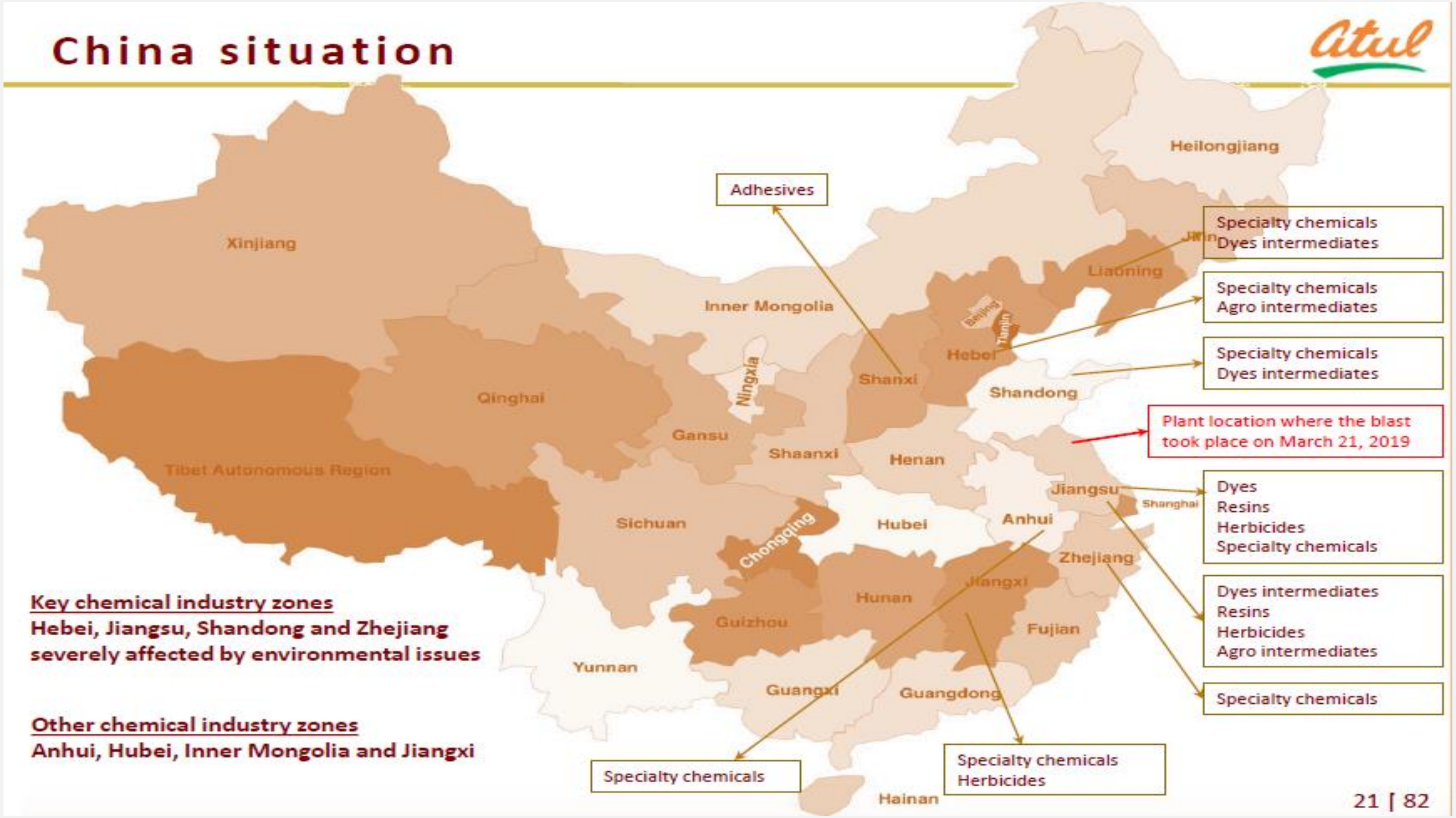
Chinese Government has become stricter after the accident

- On March 21, 2019, the blast at Jiangsu Tianjiayi Chemical company in Jiangsu province in China led to death of more than 70 people while **injuring more than 600 people – One of the deadliest industrial accidents**
- Prior to the accident, there were some relaxation given to the chemical companies due to US – China trade war
- Jiangsu is one of the largest manufacturer of chemicals in China especially for dyes, herbicides, resins and speciality chemicals – **More than 20% plus production** of some of the chemicals
- The accident triggered large scale inspections across the country and shut down of non compliance companies
- Jigansu province has taken some harsh steps including:
  - Some new policies being discussed **By the end of 2020, the number of chemical companies in Jiangsu province will reduce to 2000 from more than 6000 currently. The number to further reduce to 1000 by 2022.**
  - No new investment or expansion in the province for intermediates of pharmaceuticals, pesticides or dyes unless investment exceeds Rs.1000 crore
  - **No chemical plant can operate near Yangtze river** within a radius of 1 km of the river
- Severe shortage of few products disrupting the supply chain of major chemical players

- The consolidation in the Chinese chemical industry **will gather more pace with many small and mid sized companies expected to shut down permanently** (March, 2020 anyway was the deadline for shifting to industrial parks). Movement from unorganized to organized

Source: Company information, Research reports, News, Analysis

Jiangsu Blast – China situation becoming more volatile (1/2)



Source: Atul Limited Presentation

Feedback from Chemspec India (April 16 – 17, 2019)

India – No more an alternate source but a major one!

- Chemspec India - One of the largest chemical exhibition held in the country. Many listed Indian cos and Chinese cos participated
- Just a day before the exhibition, Syngenta had invited supplier of technical and told them that **there will be huge shift in supplies from China to India for its products**
- **There is no alternative for us but to look at supplier base in India or set up a manufacturing capacity here** – Dr Surendra Bhatia, SAPEC India MD
- Factories manufacturing some of the hazardous products like phosgene have been **completely shut down** across China
- India is much ahead of China in following environmental norms for chemical companies
- Chinese chemical companies are now looking to set up manufacturing base in India. **Huge jump in enquiries from Japanese customers**
- Some of the contracts that we had lost to China due to their lower prices few years ago are **now coming back to us** – Hikal

Shift towards Indian companies has become more prominent after the incident – MNCs being pressurized to take supplies from only environmentally compliant suppliers

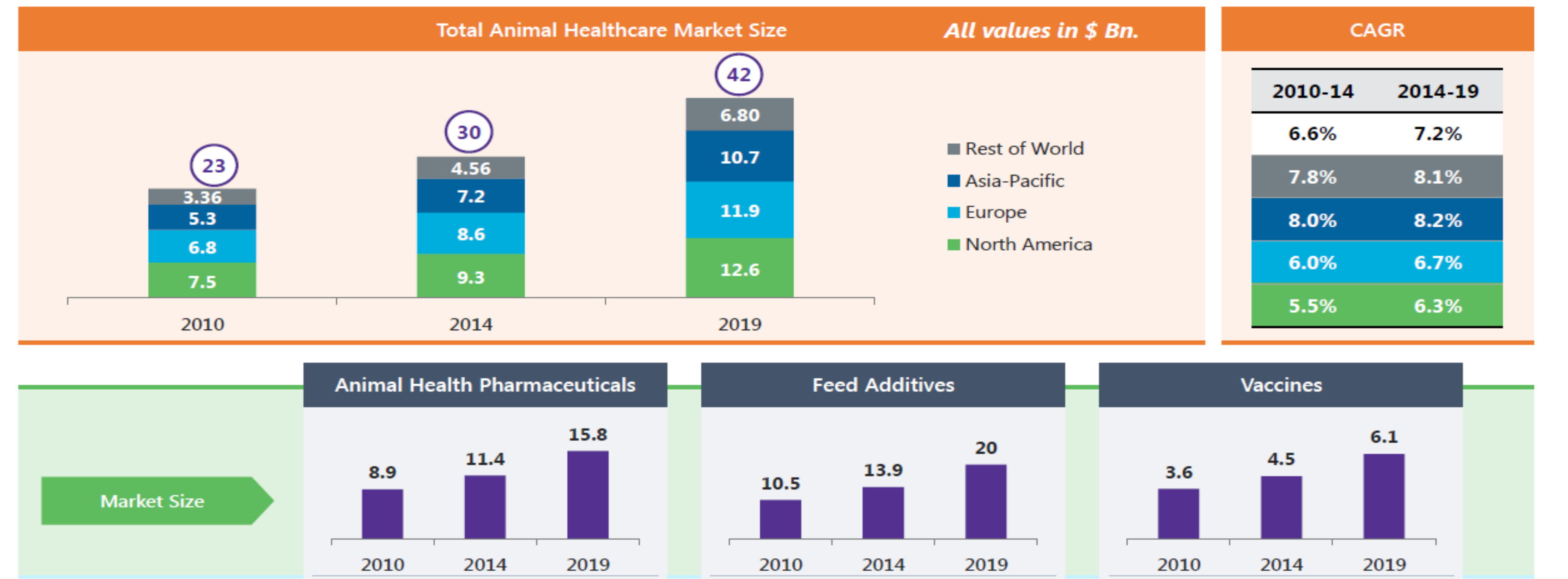
Key learnings over the past one year in the industry

- **Shortage of product leading to temporary high demand vs inherent competitive advantage of the company**
  - Lot of companies over the past one year had seen significant increase in demand of their product due to supply shortages in China. Prices of the product had increased by 3 – 5 X
  - Difficult to track prices regularly and supply can come back anytime
  - Current exorbitant profitability margins might not be sustainable
- Single product company vs diversified product basket
- **Backward integration** has become an integral part of strategy of the companies – Reduce dependence on Chinese supplies as much as possible
- **Plant concentration risk** – can be a black swan event!
- **Green field capex vs brown field capex** – Uncertainty associated with EC approval
- **Peak margins in many of the companies** – how sustainable is it? – Past trend of nos do given an indication

NGL Finechem – Niche play on veterinary API industry (1/2)

Consolidated Animal Health Industry

- Manufactures APIs and intermediates for animal heath industry.
- Veterinary market is pretty **consolidated with top 10 companies controlling a large portion of the market**
- Unlike human pharmaceutical industry, animal health industry has low generic penetration – Not much price erosion even after a product becomes off patent – normally 2 – 3 players in regulated market after patent expiry
- **India has only one USFDA approved API manufacturing** facility (Sequent's Vizag facility)
- Very few products have sales of USD 50 million and products with sales of USD 100 million are considered blockbuster products in the industry



Source: *Sequent Scientific presentation*

NGL Finechem – Niche play on veterinary API industry (2/2)

NGL – Can it capitalize on the opportunity and scale up?

- Two promoters – one is an IIT and IIM pass out while other is a CA
- Team of 30 scientists in R&D including 3 PhDs (R&D head is a PhD from Michigan and IITian) – almost the same compared to much larger peers in human APIs and chemical industry – works on introducing new products and optimizing processes of existing products – introduces 2 – 4 new products every year.
- Caters to 5 out of top 10 animal health companies. Currently focused only on unregulated markets – RoW and Asia – Pacific. Currently, present in 4 legged animal market and entering poultry market in FY20 which is also pretty large
- Focuses on niche, small value products with market size of less than 100 crore where big players are not present and tries to become a large player in it (>50% market share)
- Gross margins of 55 – 60% generated over the past 4 years – one of the highest amongst chemical and human API companies – backward integrated upto N – 8 reactions in some of the products
- **Growth drivers** – the brownfield capex commenced operations in April, 2019. Also, has EC approval for a greenfield plant - learnt from its earlier mistake

Key Risks

- **Product concentration risk** with top 3 products contributing 45 – 50% sales (although it has product basket of 30 products)
- **Ability to scale up** is yet to be seen as currently it's a small sized company with sales of just Rs.155 crore
- Cost dynamics are different for regulated markets – has to enter it at some scale in future (Sequent's Vizag API plant took 4 years to break even)

Given its small size and huge opportunity available along with experienced management team and good chemistry skills should help the company in scaling up to next level

Bharat Rasayan – play on agrochemical technical opportunity

Bharat Rasayan – Can it leverage on it customer relationship?

- Part of Bharat Group which is amongst the largest 10 agrochemical companies in India
- Agrochemicals – one of the sectors highly impacted by China issue. India – no more an alternate source but now becoming a major source.
- State of the art plant (extremely well planned) at Dahej (better than most of the chemical/API plants I have come across). Very experienced management team and promoters. Grew revenues by more then 5X in 6 years and PAT by 11X
- Diversified product basket with 21 active products currently which will expand to 30 – 35 products post completion of capex over the next 2 – 3 years. No single product contributes more than 15% of sales.
- Does CRAMS for MNCs including Syngenta, Bayer, Sumitomo Chemicals, Nissan etc. 4 Japanese clients currently (takes 8 – 10 years to get a breakthrough) and in discussion with more. MNCs share of revenues increased to 50% currently from 20% few years back
- Expertise in reactions like Chlorination, Sulphonation, Nitration, Condensation and Hydrogenation. Goes upto N- 7, N – 8 steps in few of the products. Known for the purity of its products.
- Good feedback received from other industry players about the company
- Backward integration for manufacturing of intermediates to be completed by December, 2019 (first phase – June, 2019)
- Undertaking huge capex of Rs.500 crore (Rs.200 crore in Dahej and Rs.300 crore in Saykha, Gujarat – 3rd plant). Current gross block is ~Rs.300 crore – Knowing promoters a bit, they will not be committing such huge capex without some confirmed orders in hand.
- Will start manufacturing 'innovator' products from Saykha plant.

Key Risks

- Increasing working capital intensity
- Huge capex being executed – funding for the same still not known
- Two unlisted companies which are in the formulation business

Huge opportunity available in the sector along with established relationship with clients and the new capex being executed should help the company catapult to new heights

GMM/Swiss Glasscoat – Capex plays in the chemical sector

Huge capex planned in chemical/Pharma API sector

Name of the company	Gross Block as on Mar. 31, 2018 (Rs. Cr)	Capex in FY19 (Rs. Crore)	Capex Plans
Aarti Industries	2,849	797	1000 - 1200 crore in FY20
Atul Ltd	1,268	211	466 crore in FY20
PI Industries	1,195	228	400 crore capex every year for next two years
Divis	2,481	635	1500 - 1800 crore capex for next two years
Vinati Organics	497	202	250 crore and 550 - 600 crore (tentative)
Bharat Rasayan	257	47	500 crore spread across 2 - 3 years
Alkyl Amines	401	69	100 - 150 crore every year for next 2 -3 years
Balaji Amines	496	170	200 crore for Balaji Speciality
Hikal	784	131	200 - 250 crore over the next two years
Rallis India	488	34	800 crore over the next 3 - 4 years

- Glass Lining Equipment (GLE) – 5 to 10% of the total capex of chemical/APIs
- Oligopoly market structure with GMM and Swiss Glasscoat controlling 70 – 75% of the market for GLE
- Current market size – 500 crore – expected to reach 1000 crore in medium term
- Order book of both the players has more than doubled over the past 2 years
- Demand increasing for allied products like rotary vacuum mixers and dryers also – which is also an oligopoly market where HLE (parent of Swiss Glasscoat – merging with Swiss Glasscoat), GMM and BEW Engineering control 70 – 75% of the market

Key Risk

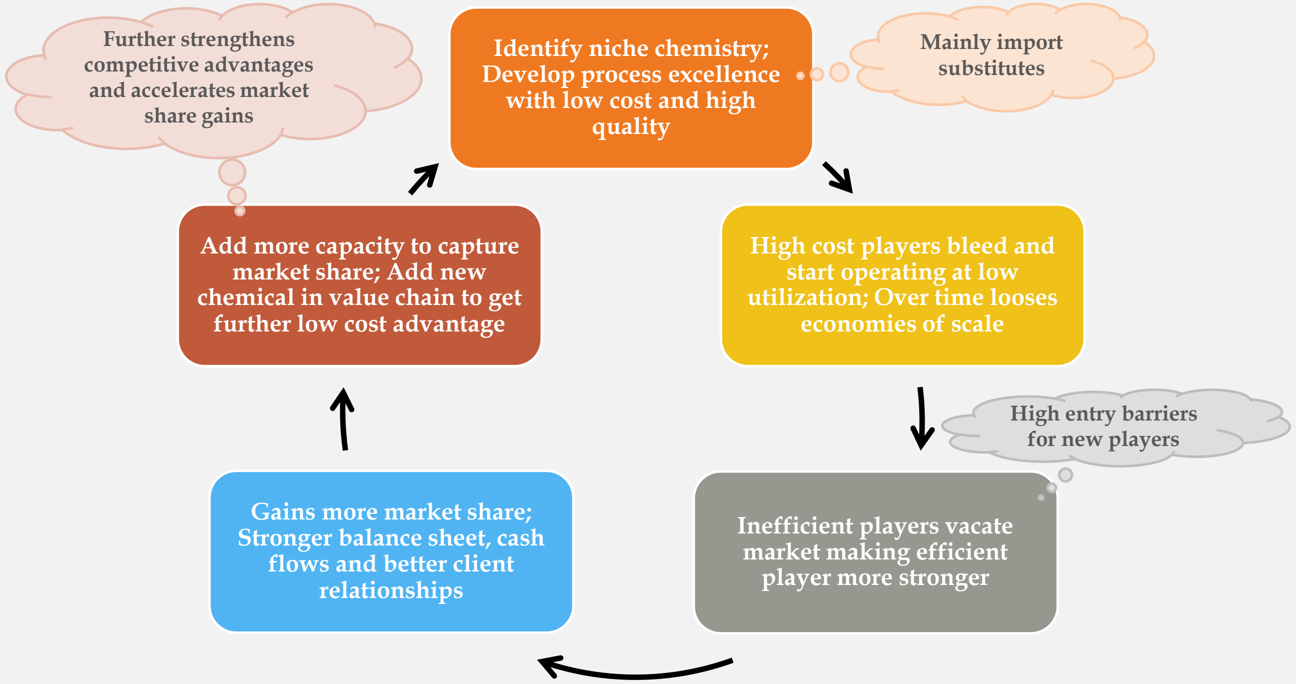
- Market size to fall of the cliff after the capex cycle is completed

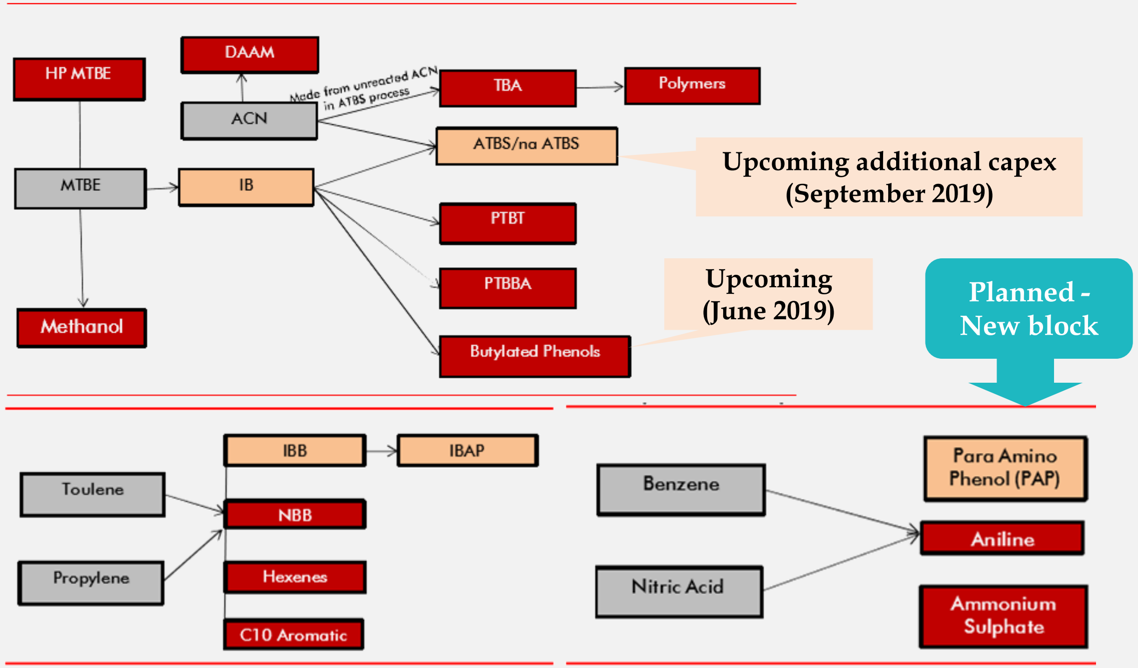
Vinati Organics (1/2)

KEY PRODUCTS	MARKET POSITION
Isobutyl Benzene (IBB)	Largest manufacturer in the world **(65%+ market share)**
ATBS	Largest manufacturer in the world and the only manufacturer in the country (~**65% market share)**
Isobutylene (IB)	Largest manufacturer in the country **(70%+ market share)**
HPMTBE	Largest manufacturer in the country
N-Tertiary Butyl Acrylamide (TBA)	Only manufacturer in the country
N-Tertiary Octyl Acrylamide (TOA)	Only manufacturer in the country

Raw Material	CAN	MTBE	Toulene, Propylene
Core Product	ATBS*	IB	IBB
Forward Integration		ATBS, PTBT, PTBBA, Butylated Phenols	IBAP
Product generated from usage of Waste Raw Material	TBA, TBA is also forward integrated to multiple polymers	Methanol	Hexenes, C10 Aromatics
New Products from to aiding to RM procurement scale	DAAM	HP MTBE	

Work on Butyl Phenols and ATBS expansion projects is on track and both are expected to be complete by 30th June, 2019 and 30th September, 2019 respectively (latest result update)





Validated from **gain of market share by Vinati over many years** (low cost + purity), they **are largest manufacturer in most chemicals** they produce (economies of scale); **Exit of many big competitors like Chevron, Shell and Lubrizol** from these chemicals; They are the **only manufacturer in the country** for some its products (import substitution)

Source: Company information; Ambit Capital research; Analysis

Vinati Organics (2/2)

8. Work on Butyl Phenols and ATBS expansion projects is on track and both are expected to be complete by 30th June, 2019 and 30th September, 2019 respectively.

Chemical Name	HS Code	2015	2016	2017	2018
Para-Tertiary Butyl Phenol	29071940	93,17,926	1,17,62,434	1,23,17,110	1,39,71,340
Ortho-Tertiary Butyl Phenol	29072990	28,26,943	45,67,001	51,99,418	93,03,065
2,4-Di Tertiary Butyl Phenol	29071920	10,31,106	8,02,260	7,13,050	10,03,110
2,6-Di Tertiary Butyl Phenol	29071990	1,45,74,674	1,56,73,252	1,65,15,825	1,90,57,394
					4,33,34,909

Key figures to watch (Mcap~10,700 cr)

- **PPE: 472 cr; CWIP: 191 cr; BS size: 1,227 cr**
- **Debt:** 3 cr (current); 0 cr (non-current)
- **Revenue:** 1,158 cr (FY19) vs. 772 cr (FY18)
- **EBIDTA:** 409 cr vs. 212 cr (37% vs. 29%)
- **PAT:** 282 cr vs. 144 cr (24% vs. 18%)
- **Q4 2019: Rev**-307 cr; **EBIDTA**-120 cr; **PAT**-83 cr (40% OPM, 27% NPM)

Expected revenue from Buytl Phenols ~350-400 crores at 70% utilization assuming ~1800 USD/tonne realizations (39,000 TPA capacity)

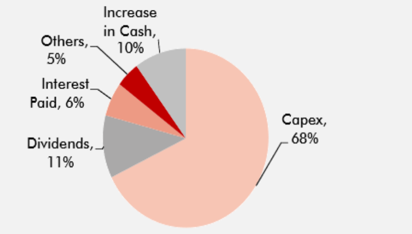
Key risks

- **New projects execution risk**
- **Margin dilution (from new & existing)**
- **High operating leverage**
- **High dependence on few end products (Example: Ibuprofen; Paracetamol)**

Optionality as of now: PAP capacity addition can bring ~INR 400 crores revenue at 70% capacity utilization assuming ~4000 USD/Tonne

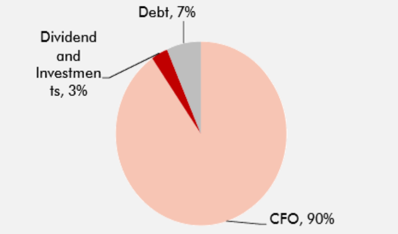
Current import is ~24,000 TPA; New capacity for Vinati will be 21,000 TPA

Exhibit 30: Application of capital - FY06-16



Source: Company, Ambit Capital research

Exhibit 31: Sources of capital - FY06-16



Source: Company, Ambit Capital research

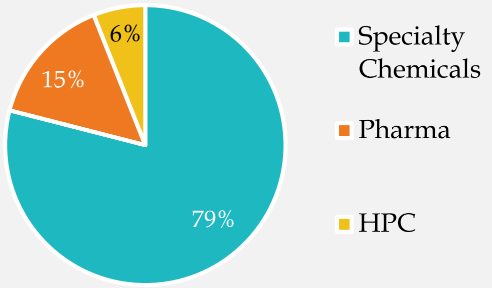
Butyl Phenols and Para Amino Phenols both will be **majorly import substitute products;** These might be **margin dilutive** though. PAP is **highly dependent on paracetamol** end product while Butyl Phenols have diverse application. PAP PFR was filed in 2016 but it is taking longer for company to execute

Aarti Industries (1/2)

Multi – products, customers, plants, geographies, end-user industries

- Expert in **Benzene based derivatives with integrated operations** and high level of cost optimization; Recently started with **Toluene derivatives chain**
- **3 R&D facilities;** dedicated pool of over 170 engineers & scientists
- **Started with 1200 TPA Nitro Chloro Benzene (NCB)** back in 1986 (est. 1984)
- **2016:** NCB capacity expanded from 57,000 TPA to 75,000 TPA (13% CAGR; 34 years)
- Pharma has interesting play on CRAMS and Xanthine derivatives (Caffeine and others)

Sales FY19: 5,014 Cr



200+ Products

400+ Global Customers

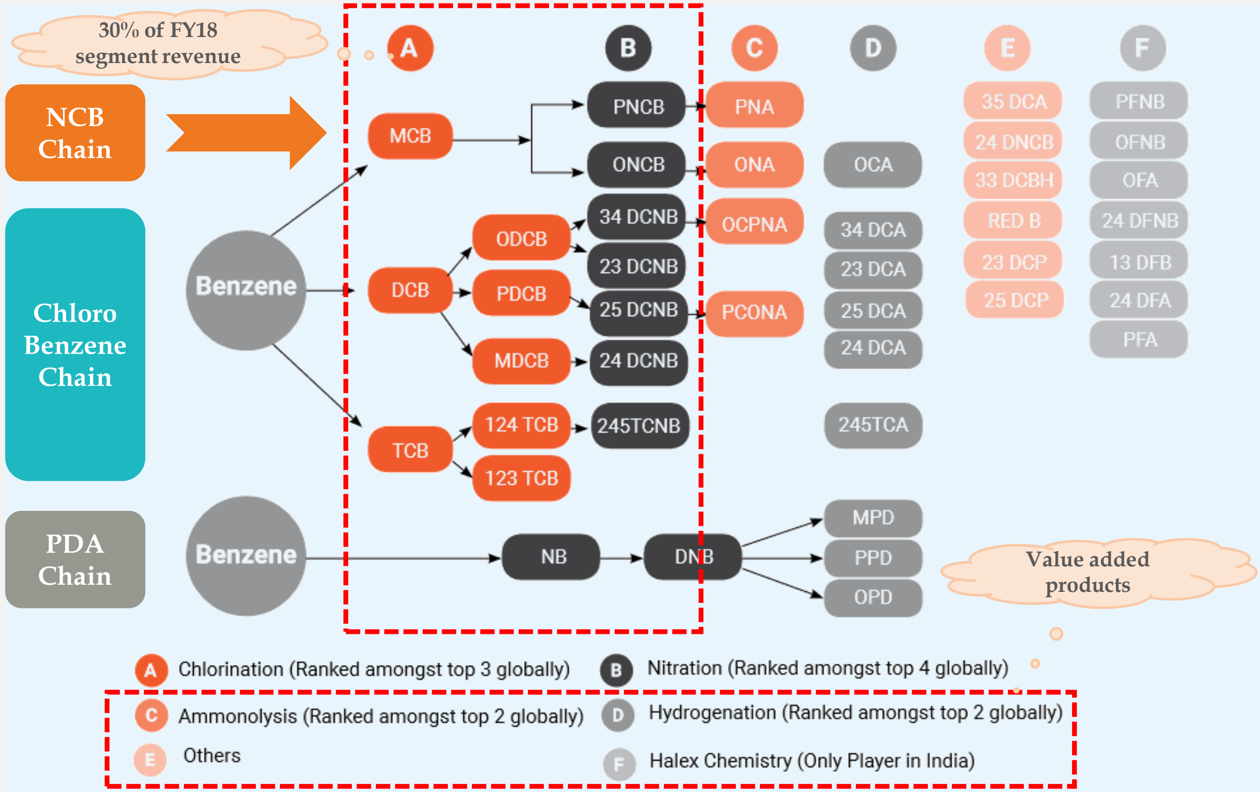
700+ Domestic Customers

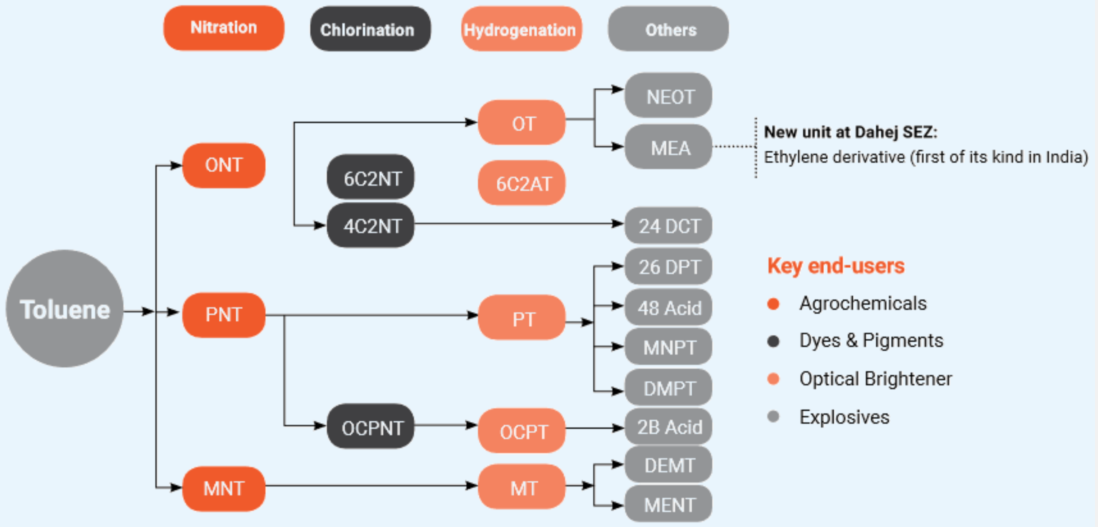
17 Manufacturing Plants

12 Zero Liquid Discharge Plants

5,100+ Employees

Took 20 years to reach first 500 cr revenue





- **Nitro toluene plant** commissioned in Sep-2017; Sales potential of **350-400 cr at peak utilization in 3-4 years** (as per AR 2017-18)
- **Hydrogenation** of Nitro Toluene facility commercialised in Q4 FY19

Aarti Industries (2/2)

Key expansion projects undertaken

Project	Location	Capacity Details	Commissioning	Q3FY19 Utilization	Objective of Capex
Nitro-Chloro Benzene	Vapi	Expanded From 57 to 75ktpa and **further expanding to 108 ktpa**	FY16	90%	Diversifying further in benzene value chain
Phenylene Diamines	Jhagadia	Expanded from 5 to 12ktpa	FY17	40%	Strengthen presence in high-end polymer
Nitro-Toluene	Jhagadia	Set up a 30KTPA plant	FY18	53%	Foray in Toluene chain
Ethylation	Dahej	Set up a 8 to 10 ktpa plant	FY17	80%	Increase of agrochemical intermediates

Key projects being setup

Location	Details
Vapi, Kutch & Tarapur	Various Speciality Chemicals, API & Pharma Intermediates. De-bottlenecking and expansions
Jhagadia	Chlorination & Speciality Chemical Complex, Nitration of Chloro Benzenes
Dahej	Capex for New Long Term Contracts
Navi Mumbai	New R&D Centre

Key figures to watch (Mcap~15,000 cr)

- **PPE: 2,283 cr; CWIP: 799 cr; BS size: 6,070 cr**
- **Debt:** 1,290 cr (current); 844 cr (non-current)
- **Revenue:** 5,014 cr (FY19) vs. 3,806 cr (FY18)
- **EBIDTA:** 970 cr vs. 699 cr (19.4% vs. 18.4%)
- **PAT:** 483 cr vs. 333 cr (9.6% vs. 8.8%)
- **Q4 2019:** **Rev**-1,200 cr; **EBIDTA**-236 cr; **PAT**-124 cr (standalone)

- **Jun-17:** Signed INR 4,000 crore multi-year deal with a Global Agriculture Company for supply of a high value agrochemical intermediary **(Q4-FY20)**
- **Dec-17:** Got INR 10,000 cr 20-year, exclusive supply contract with leading global chemical conglomerate **(1H-FY21)**
- **Feb-19:** Bagged a INR 900 crore contract to supply specialty chemical intermediate to a global firm **(Q4-FY21)**
- **Mar-19:** QIP of INR 750 crore issuing equity shares at INR 1,397/share
- Demerger of HPC segment currently pending with NCLT

Multiyear deals in speciality chemical division; unique proposition

Aarti, on the back of a sustainable track record of supply of quality intermediates, has bagged two multiyear contracts under the speciality chemical domain (starting 2020). The first contract amounting to ~₹ 4,000 crore for an agro-chemical major, spread over a 10-year period will provide a topline of ~₹ 400 crore annually. In this contract, Aarti intends to realise ~20% EBITDA margins & RoCE of ~20%, incorporating a capex spend of ~₹ 400 crore. The second contact amounts to ~₹ 10,000 crore for a chemical major, spread over a 20-year period with topline potential of ~₹ 500 crore annually. In this contract, due to partial funding of capex (~₹ 250 crore) from the customer's end in the form of advances, the intended EBITDA margins and RoCE will be sub 20%.

Source: ICICI Direct research report; Meeting with CFO in Mar-18

Our pharmaceutical business is at an inflection point. With major fixed costs having already factored in, any potential rise in the volumes will boost our segmental profits substantially.

Key risks

- **New projects execution risk**
- **Benzene prices can cool-off**
- **Margin compression (China effect)**
- **High operating leverage**
- **Rising debt**

Shares of Aarti Industries have rallied 8 per cent to Rs 1,418 apiece on the BSE in intra-day trade after the company announced that they have signed a $125 million (Rs 900 crore) supply contract with a leading global chemical conglomerate.

The contract entails the supply of a high-value specialty chemical intermediate for a period of 10 years. The plant is expected to commission in Q4 FY2021, with average annual revenue of $ 12.5 million.

"The company estimates a capital investment of approx $ 15 million (Rs 106 crore at exchange rate of Rs 70.95) to setup a commercial scale manufacturing facility for the production of this speciality chemical intermediate in the state of Gujarat. The product is not part of company's existing product range," Aarti Industries said in a press release.

Capex in FY19 – INR 797 cr; Planned capex of INR1,000-1,200 cr in FY20 (for ~20% ROCE >> 200 cr incremental EBIT); FY19 EBIT– 750 cr

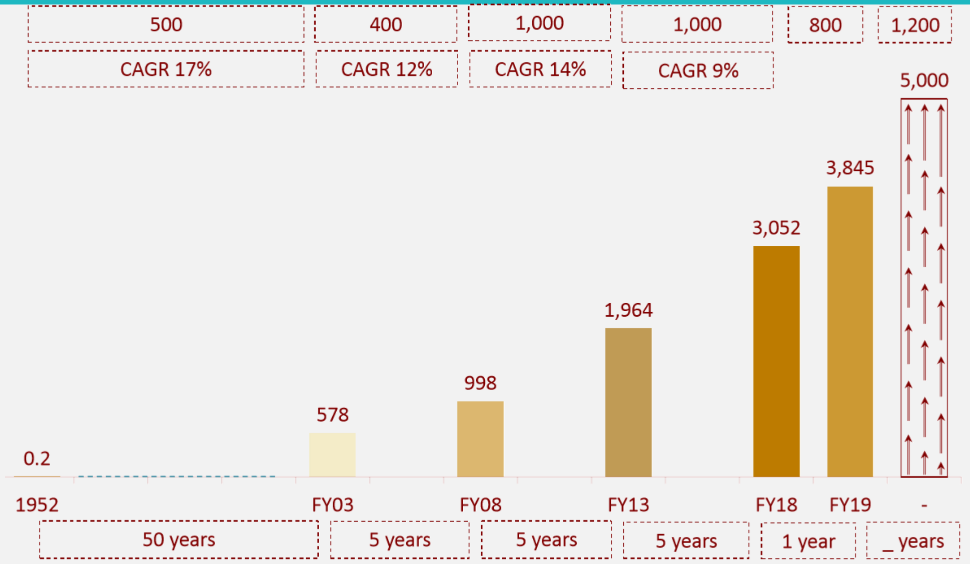
Atul Limited (1/2)

Life Science Chemicals (~32% of FY19 sales)

- **Crop protection:** Herbicides, Insecticides, Fungicides, Others (~20%)
- **Pharma and Aromatics-I:** API intermediates, APIs, Other (~12%)

Performance and other chemicals (~68% of FY19 sales)

- **Aromatics - II:** Intermediates, Perfumery, Others (~20%)
- **Bulk Chemicals & Intermediates:** Bulk chemicals, Adhesives (~6%)
- **Colors:** Textile dyes, Pigments, Paper dyes, Inks, Textile chemicals (16%)
- **Polymers:** Epoxy Resins, Adhesive chemicals, Protective paints (~26%)



Product	Market share (2018-19)	Competition
p-Cresol (P&OC)	42%	Asia (4) North America (1)
p-Cd (P&OC)	20%	Asia (3)
p-AA (LSC)	75%	India (2) Asia (1) Europe (1)
p-AAI (LSC)	95%	India (2)
Resorcinol	Significant (India) Insignificant (World)	Asia (2)
Resorcinol Formaldehyde Resins	Insignificant (under qualification at major customers)	India (2), Asia (5)
CSA	Significant (India)	India (1)
Textile dyes	Significant (India) Insignificant (World)	India (>100), Asia, Europe
HP pigments	Insignificant (World)	India (5), Asia, Europe
2,4-D and downstream products	16% (World)	North America (Dow), Australia (Nufarm), Asia (CAC, Meghmani, Hanfu, Keyuan), South America (Albaugh), Europe (Adama)
Indoxacarb	7% (World)	Asia (Jingbo, Gharda and 2 other smaller producers), USA (DuPont | now FMC)
Dapsone	50%	India (1), Europe (1)
Epoxy Resins | Curing agents	Significant (India)	India (2), Asia, Europe, North America

Market Cap: 12,000 Cr

65 plants

900+ products

400+ formulations

90+ countries

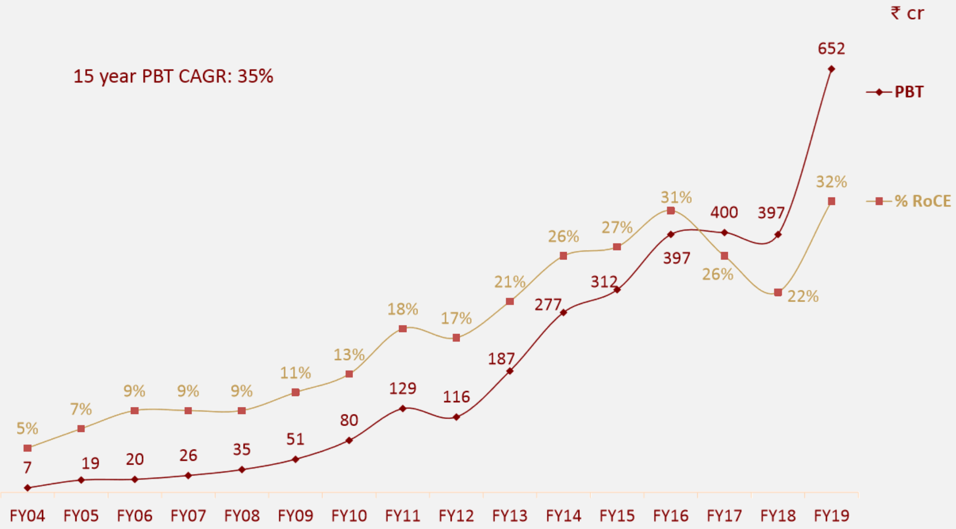
6000+ customers

FY19 standalone data

Sales: 3,916 cr (up 24%)

EBIDTA: 768 cr (up 50%)

PAT: 429 cr (up 59%)



Signs of low value add products; China effect now seems to be playing out

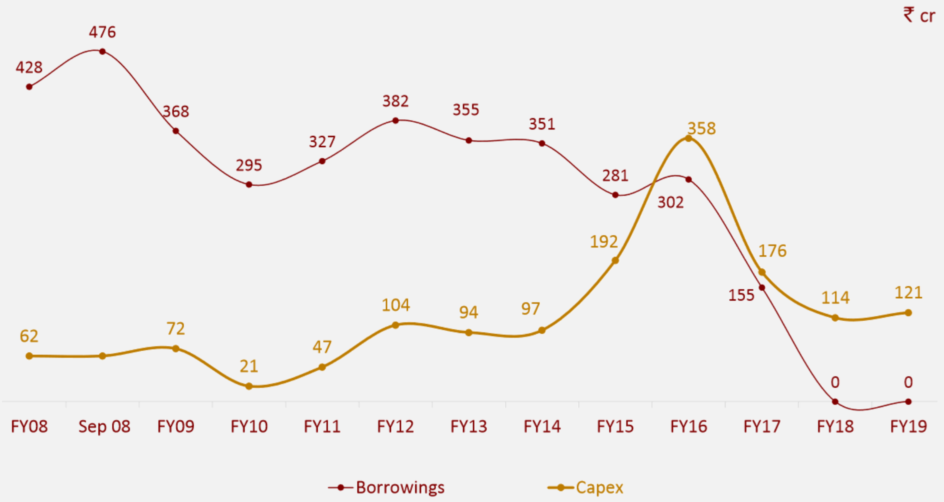
Atul Limited (2/2)

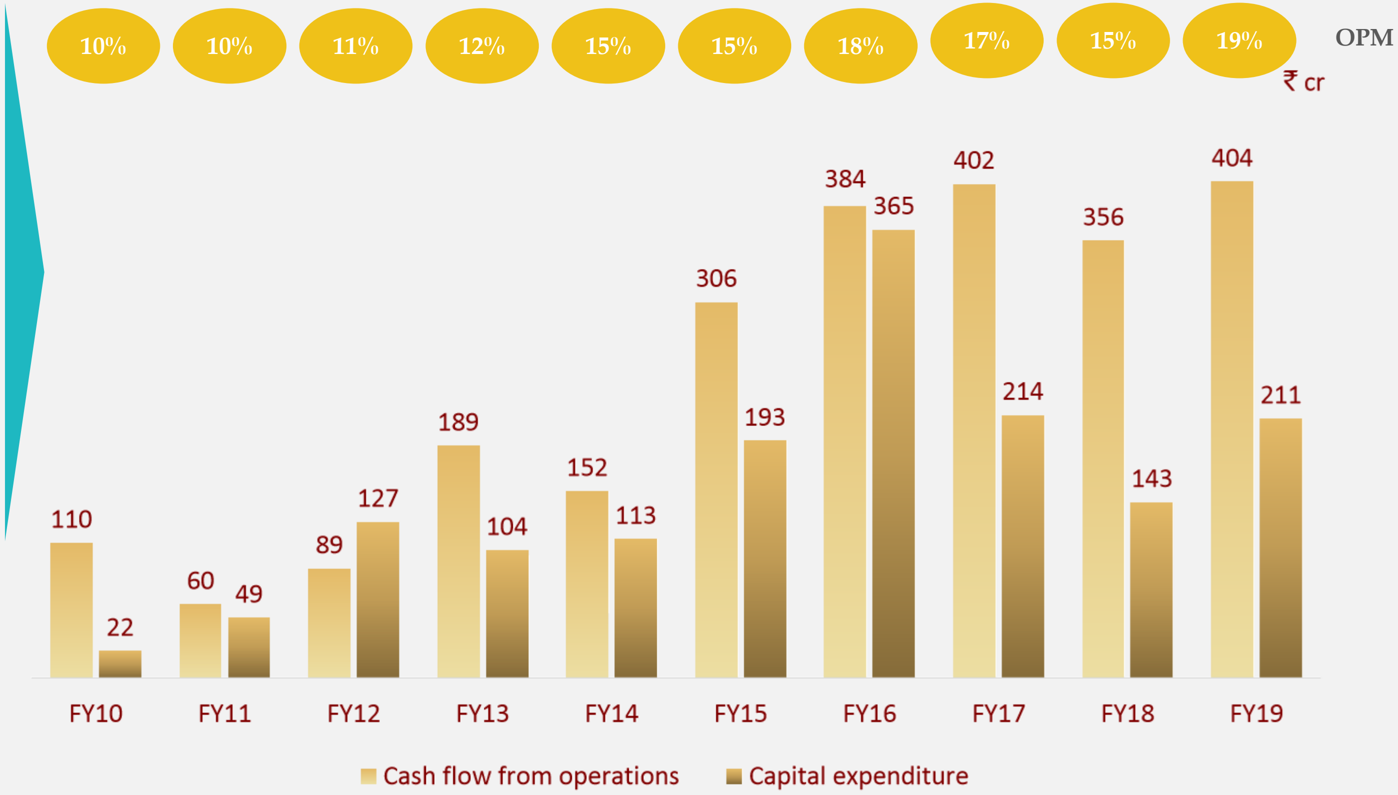
₹ cr

No.	Category of projects	Investment	Sales
1	Existing products (debottlenecking)	19	39
2	Existing products (expansion)	370	950
3	Safety	10	-
4	Environment	77	-
	Grand total	**476**	**989**

The above projects are expected to be completed in 2020

Implementation of Caustic soda project (not included above) will commence during 2019-20





- Margin and capex profile indicating that company is **moving towards value added and high margin products** (particularly since 2013-14)
- Company **executed massive capex in FY16 and now even bigger in FY19-20**
- **~40%+ products still looks highly commoditized** (risk of China effect reversal?)

Used bumper cash flows to become debt free and further capacity expansion; New reset to the Balance Sheet profile and its strength

Very high risk in terms of margin compression and sustainability of growth if China situation reverses or competition rises

Sudarshan Chemicals

Focused Pigments Player

- 60 year old business and largest pigment producer in India
- Sold low margin Agro Chemicals and Masterbatches business (Prescient color) in FY19 to focus solely on Pigments
- Proceeds of Sale (70 Cr) used to expand capacity
- Domestic:Exports is 55:45
- Had announced 1000 Cr capex in FY18 by CY20 which appears to have been put on hold or scaled down

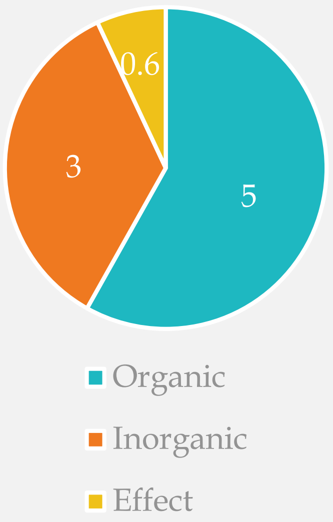
Opportunity

- Pigment Industry is net exporter
- Per Capita consumption of pigments in India low
- Global market at $10b and Sudarshan topline at $200m
- Aims to be 3rd largest pigment producer in the world

Moat

- Product acceptance in developed markets that have stringent quality control measures.
- State-of-the-art manufacturing, quality control and global presence.

Global Pigments Market ($ billion)



Organic	Inorganic	Effect
Azo	Chromes	Cosmetic
Phthalos	Cadmiums	
HPPs	Iron Oxides	
Dispersions		

Risks

- China dumping
- Crude oil prices
- Currency Risks
- Un-organised sector accounts for large domestic share
- Pollution compliance
- RM supply chain disruptions due to China pollution crackdown

Valuation

Business has returns on capital consistently above cost of capital - avg of about 18% in the last 5 years. Has expanded capacity as required to grow its topline and has reduced D/E from 2 to 0.4 in the last 5 years and looks to be a prudent capital allocator (For eg. Company foresees RM risks so has allocated capital towards inventory to de-risk in current FY). It is currently trading at a P/E multiple of about 15 which is the 8 year median P/E and is lower than the 3Yr and 5Yr median multiples, so could be a tad undervalued at 330.

Navin Fluorine

Pure-play Fluorine Business

- Since 1967. Pioneer in Fluoride chemistry in India
- Present across Refrigerants, inorganic fluorides, specialty fluoro-chemicals & CRAMS - First two are volumes businesses and next two are margin businesses

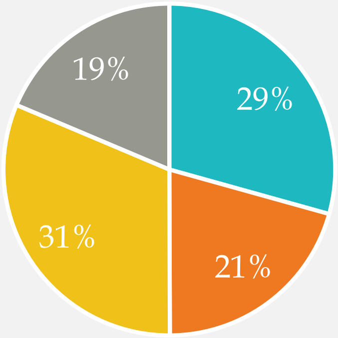
Opportunity

- Low penetration of air-conditioners
- Pipeline of new products
- International market expansion
- Expanding CRAMS capacity (110 Cr capacity coming online second half of FY20)

Moat

- Half a century of Fluorine expertise
- JV (25% stake) with GMDC & GFC to secure fluorspar
- Partnerships with global life and crop science companies
- Strong global tech team
- cGMP compliant plant

FY19 Revenue – 1000 Cr



Segment	Exports %	Imports %
Refrigerants	44%	56%
Fluorides	10%	90%
Specialty Chemicals	40%	60%
CRAMS	100%	0%

Risks

- Fluorspar and other RM prices
- **CRAMS business appears to be shrinking** but company is doing capex for CRAMS
- **Environment risks** - Fluorine affects the Ozone layer so there is environmental regulation risk in a lot of countries
- Competition from **non-Fluorine gases** is growing
- **HCFC demand** is declining from developed countries

Valuation

The company was not able to pass on sudden RM price increases completely which caused EBIT to flatline. Going forward, with the JV with GMDC & GFC, this might be less of a problem.
However, at 24 times earnings, and at the higher end of the historical range, there is no margin of safety in the current valuation, considering this is largely a basic commodity business underneath.

Deepak Nitrite (1/2)

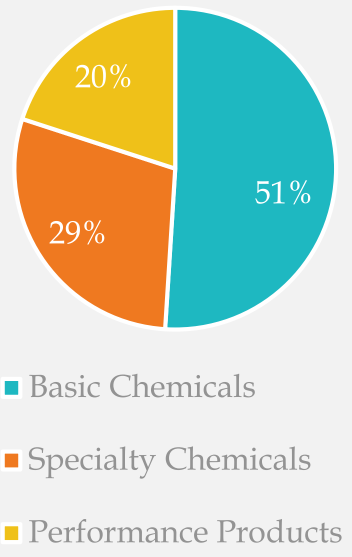
From Nitrites to Phenol-Acetone

- Market leader in Nitrites, Toluene, Xylidenes, OBA and Phenol-Acetone
- Among top 3 global producers of Xylidenes, Cumidenes & Oximes
- 70% Market share in Sodium Nitrate & Nitro Toluenes
- Completed 1400 Cr in Phenol-Acetone plant in FY19
- Customers in 30 countries

Opportunity

- Import substitution in Phenol and Acetone
- Lower logistic cost + Lower WC requirement for businesses in using domestic provider
- Possibility of a 4000 Cr revenue in FY20 (50% contribution from Phenol-Acetone)
- Forward integration of Phenol/Acetone plant with value-add products
- Supply chain de-risking from Chinese ops due to trade war
- Chinese pollution crackdown

Segments



Basic	Specialty	Perf. Prods
Nitro-Toluene	Xylidines	OBA
Sodium Nitrite/Nitrate	Oximes	
Fuel Additives	Cumidene	
	Spl Agro Chemicals	

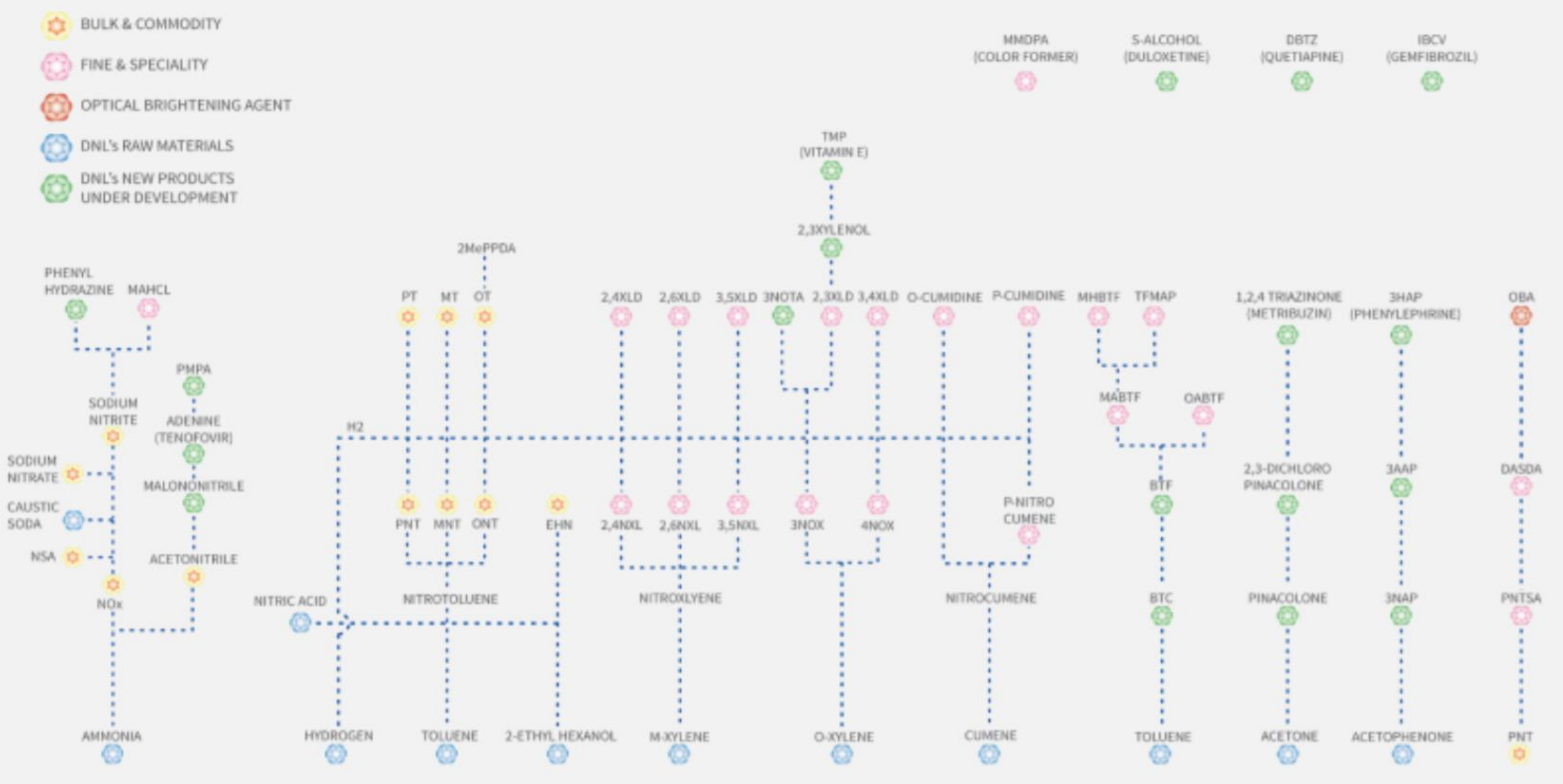
Risks

- **Pollution risk** - Company doesn't seem to have good track record
- Phenol/Acetone **price corrections** owing to large supply of DN
- 280000 MTPA of Phenol and 140000 MTPA of Acetone were imported. DN's capacity is 200000 MTPA of Phenol and 120000 MTPA of Acetone which could crash global prices
- **Debt serviceability**

Moat

- **Strong R&D**
- **Stabilizing** Phenol-Acetone plant in a short-time and getting capacity utilization up over 80% without cost and time overruns and having logistics to dispatch and record strong sales from first quarter of ops shows stellar management capability

Deepak Nitrite (2/2)



Ion Exchange

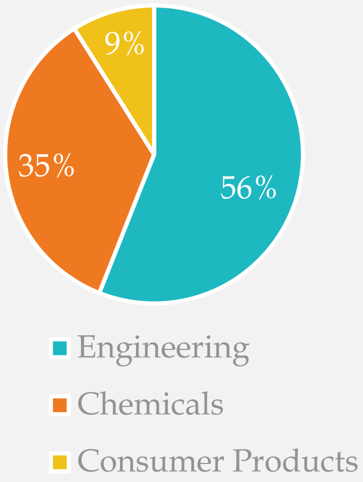
Water-treatment experts

- Operates in three segments within water treatment – Engineering, Chemicals & Consumer Products
- Domestic:Exports is 71:29
- Over 50 patents and 100+ products
- Commissioned membrane manufacturing plant in Goa last year

Opportunity

- Good order inflow in FY19 and good visibility in FY20
- Less than 30% of domestic and 60% of industrial waste water is treated
- SL order ($200m) contributed in Q4 (150 Cr) and will continue going forward
- Order book excl SL order at 1000 Cr
- Enquiry book at around 5000 Cr and management expects some conversion from this
- Incl. SL order and pending Order book, FY20 might see about 1500 Cr revenue booking

Key Segments



Key Risks

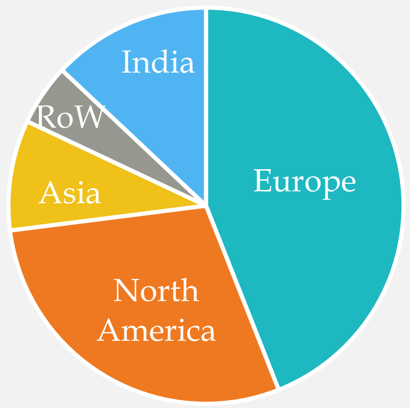
- RM prices linked to crude
- Working Capital intensive industry
- Receivable days poor due to govt. orders
- Currency Risk

Engineering	Chemicals	Consumer Products
Services & solutions business	Ion Exchange Resins	Products for Individuals, hotels, spas, hospitals, labs, educational institutions, railway & defence to provide safe drinking water
Waste water treatment	Specialty & Customised Chemicals for Water Treatment	
Sea water desalination		
Recycle & zero-liquid discharge plants for several industries		

Divi's Laboratories (1/2)

Key Strengths

- Complementary and not competing with MNCs and generic houses (plays non-conflict role)
- World's largest manufacturer in more than 10 APIs (the scale of business & the market positioning)
- Well balanced business mix - Custom Synthesis, Generic API (high vol) and Nutraceuticals
- Focus on regulated premium markets (Europe/USA)
- Develops selective new products; selects product that have steady growth in matured/established stage
- Strong process chemistry and cost-effective manufacturing
- Sustainable long-term supply relationships with the global customers - "supplier of choice"
- IPR compliance (trust - builds after many years of relationship)
- 2000cr cash equivalent in BS



Custom Synthesis : 44%

- De-risked business
- Established relationship for over many years with top 10 global pharma innovators/giants
- Comprises custom synthesis of APIs, intermediates and specialty ingredients for innovators

Generic API : 49%

- Largest revenue contributing Naproxen API contribute ~15% to the overall revenues
- Dextromethorphan and Gabapentin APIs together contribute ~15% to the overall revenues
- Valsartan, Pregabalin, Levetiracetam, Carbidopa, Phenylephrine, Mesalamine and Orlistat are other flagship generic API products

Nutraceuticals : 7%

- One of the world's leading producers of Carotenoids
- Product portfolio includes a Beta Carotene, Astaxanthin, Lycopene, Canthaxahnthin, Lutein, Vitamins (A, D3, D2, E Acetate and A Palmitate)
- Supplies to all the major food, dietary supplement and feed manufacturers around the world.
- https://divisnutraceuticals.com/

Business Segments	Fy09	Fy10	Fy11	Fy12	Fy13	Fy14	Fy15	Fy16	Fy17	Fy18	Fy19	10yr	7yr	5yr	3yr	1yr
Custom Synthesis	558	445	610	892	1,027	1,187	1,428	1,665	1,826	1,688	2,060	14%	13%	12%	7%	22%
Generic API	602	460	635	885	1,022	1,211	1,505	1,921	1,992	1,899	2,438	15%	16%	15%	8%	28%
Neutraceuticals	-	36	62	81	91	127	171	183	239	250	381	-	25%	25%	28%	52%

Divi's Laboratories (2/2)

Unit-1 (Hyderabad) – 500 acres

- Brown-field Expansion in Fy20
- Production Block: 6 (new) + 12 (existing in unit 1)
- Reactors: 192 (new) + 1728 (existing in unit 1+2)
- Capacity: 1450 (new) + 12,000 (existing in unit 1+2)
- >600cr capex in Fy20

Unit-2 (Vizag) – 490 acres

- Brown-field Expansion in Fy20
- Production Block – 8 (new) + 23 (existing in unit 2)
- Reactors – 224 (new) + 1728 (existing in unit 1+2)
- Capacity – 1680 (new) + 12,000 (existing in unit 1+2)
- >600cr capex in Fy20

Unit-3 (Kakinada) – 670 acres

- Green-field project beyond Fy20 (EC granted)
- 18,394 TPA EC approval
- https://tinyurl.com/y4phpxld
- Phase 1: Block-5, Reactors-140, Capacity-1050

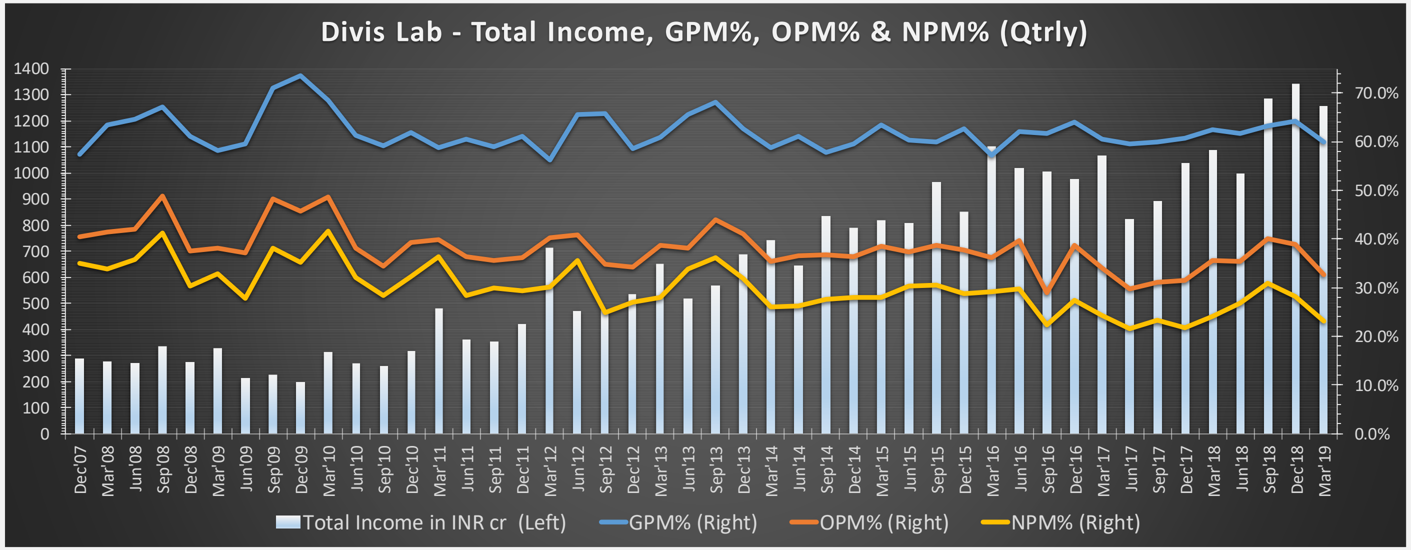
Capacity in M^3/KL

Unit – 3 Kakinada EC Approval Timeline (lengthy process)

Submitted by Proponent	Query for Shortcoming(if any) by MS	Resubmission of Proposal by Proponent	Accepted by MS	Proposal considered by EAC	Minutes uploaded on	Aditional Detail sought (if any) by MS	Replied by proponent	Delist/Relist	TOR Granted	EC Granted
26 Jul 2016	31 Jul 2016	01 Aug 2016	30 Aug 2016	'Jan 23, 2017 To Jan 25, 2017 'Oct 26, 2016 To Oct 27, 2016	'Feb 20, 2017 'Nov 28, 2016 'Nov 28, 2016	28 Nov 2016	30 Nov 2016	Delisted : 30 Oct 2018 Relisted : 10 Apr 2019	31 Mar 2015	08 Apr 2019

Margin & Guidance

- Uptick in margin was led by Valsartan and others.
- 37-38% normalized EBIDTA margin
- Management guides for 10-15% growth in FY20.
- Enhanced growth in FY21 led by the 1,500 cr capacity expansion at Unit - 1 and 2.



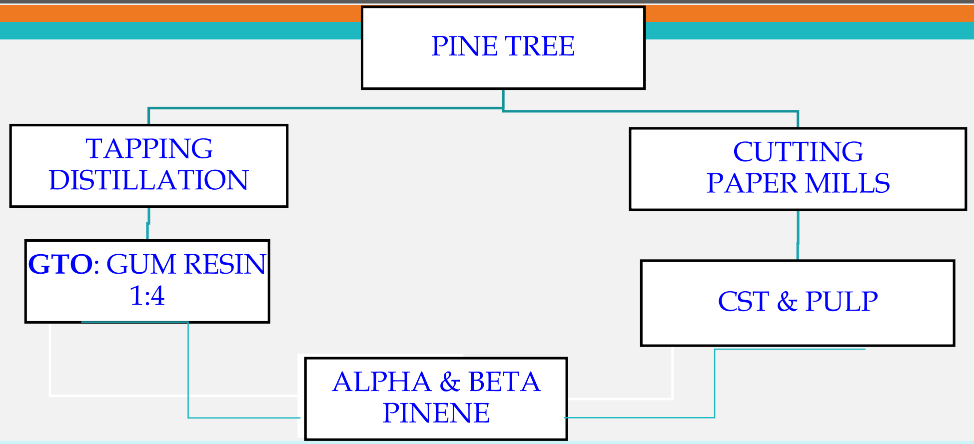
Risks

- USFDA & other regulatory compliance
- Product concentration

Transpek Industry Ltd

Bulls	Bears
Revenue **growth driven by 10yr long term supply agreement** with DuPont. Sustainable. Not one-off spike	**Single contract risk.** Contributes more than 40% if revenue it seems
As per DuPont "Transpek's technology **is newer and more productive** than its own" (source here)	Newer technology and contract manufacturing at alternative non-Transpek production site - oxymoron, isn't it?
Market share gain of Acid Chlorides	How big is pond size? **No new contract announced post DuPont 10yr contract media/press release in April 2017**
Over five decades of promoter group experience in the agrochemical and speciality chemical business	Plant operation suspended on May 10, 2019 and yet to resume at the time of writing this (June 17, 2019). Notices from FI and GPCB. (source here)
DuPont closed a plant in Deepwater, N.J. (source here) that used to make Terephthaloyl Chloride (TPC) and Isophthaloyl Chloride (IPC). Crisil credit rating report (here) indicates current contract is limited to TPC. IPC contract with DuPont could be revenue growth driver in days to come - possibility.	What if recent **Transpek plant shutdown makes DuPont think hard before increasing dependency on any one vendor?** Could this have impact on extending relationship further?
Large capacity expansion from say 31,000MT to 66,000MT. Net-block up. CWIP up	Does co require **environmental clearance for expansion?** If no, then why co applied for EC (here)? If yes, then proposal seems to have not moved beyond "TOR Granted" stage (here); desired status is "EC Granted". Why co received notice from Gujarat Pollution Control Board (GPCB)?
Plant on 100 acre land parcel. Further **brown-field expansion scope**	**Single plant risk**
Super **margin expansion** in Q4Fy19	What does base rate data say? Is 1298 basis points expansion in OPM (without change in top-line) sustainable?

Fairchem: creating value from waste (1/2)



Privi –aroma chemicals~75% of revenue

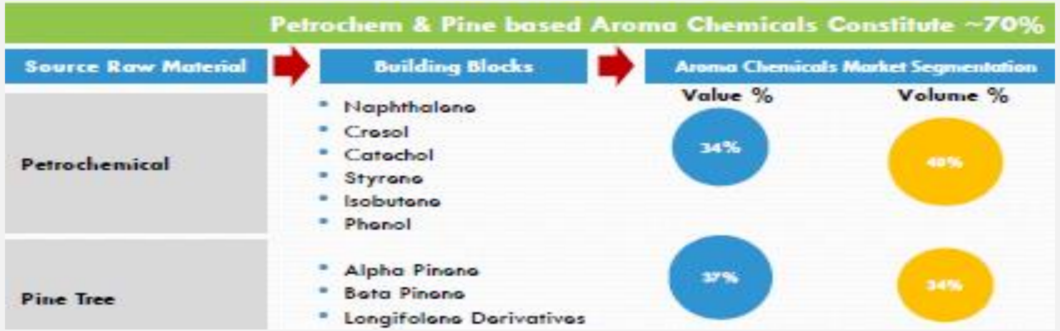
- CAGR of 18%
- F&F to grow at CAGR OF 5% to reach 35 B USD by 2020..Indian market to grow at 12%..aroma chemicals 5 B size
- Top 10 players have 80 % market share..Givaudan,IFF,Firmenich,Symrise ..etc
- New customer acquisition:(Reckitt Benckiser)..Gaining market share
- Market leader in 2-3 products..manufacturing upto 50 products

PINENE BASED
- Key Products:
  - Alpha Pinene Based: DHMOL
  - Terpineol & Terpineol Acetate
  - Beta Pinene Based: Amber Fleur

CITRAL BASED
- Key Products:
  - Ionones
  - Citronellyl Nitrile
  - Timber Touch & Timber Forte

SPECIALTY PRODUCTS
- Key Products:
  - Damascones
  - Rosaxanol
  - Sandal Derivatives

PHENOL BASED
- Key Products:
  - PTBCHA
  - OTBCHA



- Global GTO production-1,25,000 MT and reducing. Cur.CST production 1,85,000 MT
- Only Asian company with ability to remove sulphur from pulp waste
- Global sourcing ability –long term contract with paper mills in Europe, US and Canada (?advantage of Fairfox)
- Interplay between crude prices/gum terpentine oil(GTO)/gum resin/crude sulphate terpentine(CST) –
- Falling china production- became net importer
- Reflecting in prices/margins of Privi products

PLANNED EXPNASION BY 2020 (CURRENT CAPACITY: 30KT)

KEY PRODUCTS	CURRENT	AFTER EXPANSION
Terpineol and its derivatives	200	675
Dipentene varieties	80	820
Amber fleur/derivatives	400	470
citronellol	30	80
Sandal fleur	30	65
DHMOL	445	745

Fairchem: creating value from waste(2/2)

ADI Finechem (Fairchem):~25% of revenue

OLEOCHEMICALS

- Using byproducts of vegetable oil processing-price advantage
- **Abundant raw material supply**- India is largest consumer of Soya & Sunflower oil….Adi has more than 10 yr relationship with supplier
- Oleochemicals to reach $27 B BY 2020..CAGR of 6%
- **Key large customers:** Asian paints, Arkema, BASF, Cargil..
- One of key product Dimer acid showing good growth

NUTRACETUCALS:

- Produces natural mixed tocopherol/natural vitamin E: Used in pharma, food, FMCG..etc
- Advantages of natural Vitamin E

Oils	By-product	Fatty Acids	Application
SSCC, Groundnuts, Rice Bran & Rapeseeds	Acid Oils	Palmitic, Linoleic, Dimer, Monomer	Inks & Paints, Epoxy hardeners
SSCC, Groundnuts, Rice Bran & Rapeseeds	Deodorizer Distillate	Mixed Tocopherol, Distilled Fatty Acids	Natural Vitamin E Low grade resins and Soap'
Palm, Palm Kernel & Coconut	Deodorizer Distillate	Stearic, Lauric , Distilled Fatty Acids	Soap Noodles, Rubber Tyre, Cosmetic

- **Capacity 45,000MT-more than 90% capacity utilisation**
- **Debottlenecked and optimised process**
- **Capacity expansion to 72,000MT**
- **2 new plants by 2020**
  - **Sterols and high conc of tocopherols**
  - **Bio –diesel using by-products of its manufacturing process**

Key Risks

- **Increase in crude price and GTO availability : Privi has limited capacity by GTO route**
- **Most of the revenue growth seems to be from price increase if the price trend reverses can lead to severe pressure on margin**
- **Key products ..China factor**

Alkyl Amines: Leader in amine chemistry with proven capital allocation track record

What makes Alkyl Amines interesting?

Industry Attributes

- Amine chemistry has oligopolistic structure in India (and globally too) with only 3 Players – Alkyl Amines, Balaji Amines and RCF
- Difficult to transport for long distances- hence low probability of threat of import from other countries
- 75-80% of the consumption of basic amines happens in Pharma API/Intermediates and Agrochemical – Technicals/Intermediates – Amines form the basic building blocks for many API/technical.
- Due to China disruption – both agrochemical and pharmaceutical players are getting vertically integrated and RM sourcing moving to domestic/alternate sources; Increasing trend of contract manufacturing products in Agrochemicals – leading to sustained tailwind for demand

Company Attributes:

- Over last 15 years consistently maintained gross margins in the range of 48-52%, a remarkable steadiness for a chemical company that is price taker(Link)
- Consistent development/introduction of new products- due to strong R&D focus – A basket of 100+ products as compared to only 35 for its nearest competitor – A key differentiator going forward too as it helps smoothen out margin variability that happen invariably in certain product-markets
- Proven track record of capital allocation and good execution- consistent RoE of 25%+ without undue leverage – recent interaction with management too indicate controlled aggression
- Continuous focus on improving efficiency/yields- continuously falling power cost –from 14% to 10% and actively working to bring it down further

Risks:

- According to GOI policy, higher percentage of blending of Ethanol in fuel will mean higher demand for a key RM for the company leading to margin pressure on one of its key product ethyl amine and its derivatives

Alkyl Amines is well poised to piggyback on the industry tailwinds in technical/pharma API sector in India due to its dominant position in amine chemistry, ability to introduce new products continuously and run its operations tightly

GM of Major chemical companies

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Min Max margin diff in%	Avg.Gross Margin
Alkyl Amines	51.94%	48.22%	48.42%	47.29%	51.55%	49.19%	48.46%	49.11%	48.68%	47.90%	50.66%	48.84%	9.83%	49.19%
Balaji Amines	38.02%	36.13%	36.59%	43.81%	44.72%	41.28%	38.72%	37.30%	41.79%	44.82%	48.68%	46.06%	34.74%	41.49%
Aarti Industries	37.13%	39.05%	39.55%	42.46%	38.82%	34.25%	46.14%	42.53%	43.72%	43.26%	47.35%	44.75%	38.25%	41.58%
Atul Ltd	43.23%	42.05%	42.17%	43.05%	40.17%	39.78%	44.43%	47.40%	48.56%	50.05%	49.51%	45.51%	25.82%	44.66%
Vinati Organics	32.59%	35.49%	35.98%	42.68%	43.16%	40.18%	39.54%	39.84%	40.84%	53.04%	53.10%	49.21%	62.93%	42.14%
Transpek	61.61%	46.51%	55.92%	64.74%	57.63%	47.97%	53.16%	48.07%	50.05%	56.18%	53.06%	47.57%	29.51%	53.54%
Deepak Nitrite		35.23%	38.89%	37.89%	35.24%	32.83%	31.22%	36.07%	37.01%	40.87%	44.49%	42.03%	42.50%	37.43%

Dharamsi Morarjee: Striving to create niche in sulphur chemistry

DMCC: Can it leapfrog to next level?

Industry Attributes

- DMCC operates in sulfur,ethanol and boron chemistry- however sulphur based products forms a significant part of company's revenue
- Thiochemicals: mainly used in polymer binding, epoxy raisin manufacturing, oil & gas applications and animal nutrition products
- Thiochemicals- market size of around 0.7 million tons and growing at 5%; Arkema being the largest player followed by ChevronPhillips
- Handling of sulphur and sulphuric acid is difficult both from hazard and corrosion perspective – it takes incremental learnings/refinement for a company to operate the plant efficiently and keep on churning out new products regularly that meets customer requirement
- In India major players are Atul, Aarti Industries (few benzene derivatives) and Dharamji Morarjee

Company Attributes:

- 100 year old company that used to make sulphur/phosphate based fertilizers- After the next generation took over (Bimal Gokuldas) exited the highly volatile and commoditized fertilizer business
- Focused on speciality chemicals which are niche and can generate high margins- new product selection criteria – at least 55-60% GM and 30% EBIDTA margins
- Developed new product basket finding niche- became top 3 producer in world– Benzene sulfonyl chloride & Benzene sulphonic acid- in global top 3
- Marquee customers: BASF, Lanxess, Pidilite, ChevronPhillips – many new products have formula based pricing and longer tenure contract
- Positioning company as: process inventor and not as product inventor- who is environmentally and socially responsible (REACH certified)
- On current net fixed assets of 85 Cr (March 2018), company is planning to do capex of 75-100 Cr in next 2 years

Risks:

- Niche area and hence scalability may become a challenge after few years
- Main competitors are very large players- thus making inroads in new markets/products can be challenging
- Due to nature of chemistry handled- they need to take the full shutdown of plants every 15-18 months- leading to one off quarter every 2 years

DMCC is well positioned to capitalize on niche created by aggregated learning of last many years in sulphur chemistry- due to the focus that has been brought back by the management team led by Bimal Gokuldas

THANK YOU…

Q&A

REFERENCES

- Company information
- Research reports; Ambit Capital research
- Industry data portals
- World Trade data websites
- News websites
- Screener.in

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