

Still anybody's race



**Does India still
have cost
advantage?**

**What if China
capacities
comeback?**

**Analysing some
important
chemical chains**

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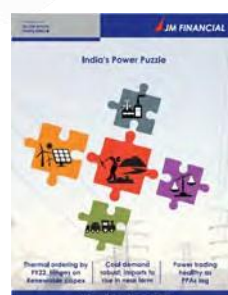
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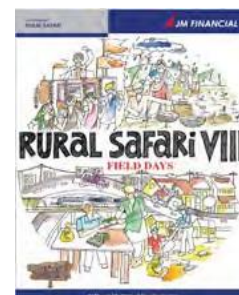
INDIA SPECIALTY CHEMICALS
SEPTEMBER 2017



INDIA STRATEGY
2019 OUTLOOK



INDIA POWER



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CY19 – still optimistic for Indian companies

In our previous report on the chemical sector dated 28th Sep 2017 ([Indian Specialty Chemicals – Growth Catalysts](#)), we had analysed that India had gained a competitive edge in the chemicals sector due to the high manufacturing cost in the US and Europe and the reduced gap with China amid the latter's focus on environment and increasing employee cost for its companies. We now revisit the thesis, particularly in view of recent media reports indicating China may have relaxed its focus on pollution in the current winter. According to reports, the target reduction in count of PMI 2.5 was cut to 3% YoY (against an original target of 5%). In this report, we also analyse which part of the chemical chain will be relatively less impacted if Chinese manufacturing comes back on stream, Since it would not be possible to analyse all chemicals, we analyse one inorganic chemical (fluorine), one organic chemical (benzene), oleochemicals and dyestuff sub-segments. Finally, we provide an update on some of the companies in the Indian investment space.

Competitive advantage of Indian companies

In our previous report, we had reported that employee cost for Chinese chemical companies had risen rapidly. However, in FY18 we note that employee cost (as a percentage of sales) for Indian companies has increased to c.8.7% while the employee cost for Chinese companies has increased relatively slowly to c.4.5%. The gap between employee costs for Indian and Chinese companies has increased from c.353 bps in FY17 to 423 bps in FY18. Additionally, if China allows a certain relaxation in environment norms, Chinese production could increase. Therefore, in the next part of this report we also analyse some of the chemical chains and potential for China to impact margins of Indian companies.

Indian companies have better RoCEs but need to invest in R&D

Over the last few years, on the back of increased costs for Chinese companies, Indian companies EBIDTA margins have improved and are now similar to Chinese companies. Indian companies also have better RoEs and RoCEs indicating that they have been judicious in use of capital. However, the Chinese companies are investing significantly higher in R&D (c.4.5% of sales) while Indian companies have only marginally increased R&D expenses to c.0.9% of sales. Clearly, Indian companies need to invest significantly more in R&D.

Analysing four sub-sectors

In the next part of this report, we analyse 4 sub-sectors and are led to believe that China has strategic advantage in 2 sub-sectors 1) fluorine and 2) dyestuff industry. Our analysis indicates that Indian fluorine companies may face margin pressures for 2HCY19. In the dyestuff industry, shutdown of companies in China has benefitted Indian companies to improve their revenues.

In the benzene and oleochemicals chain, Chinese companies do not have a strategic advantage and therefore, companies in these sub-sectors will not be impacted if China relaxes environment norms.

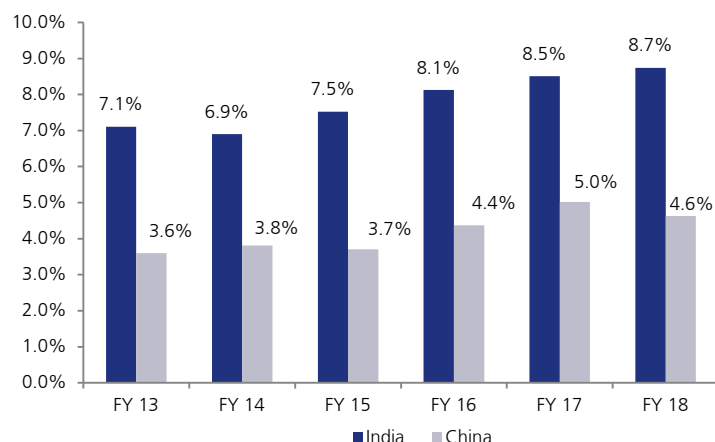
Company specific updates

In the final part of this report, we analyse and provide an update on some companies. We update our estimates for SRF and PI Industries.

We also provide operational updates and growth drivers for some other chemical companies and the key risks to these businesses. We do not have a view on some of these companies, but we provide a brief outlook for some interesting companies in the Indian investment space.

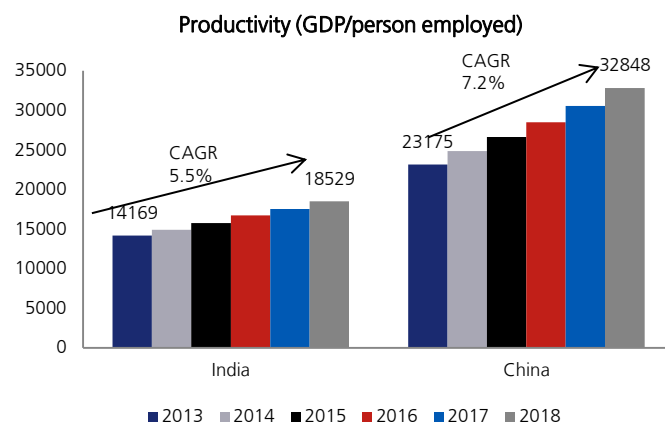
Key Charts

Exhibit 1. Gap in emp. expense between Ind-China is increasing again



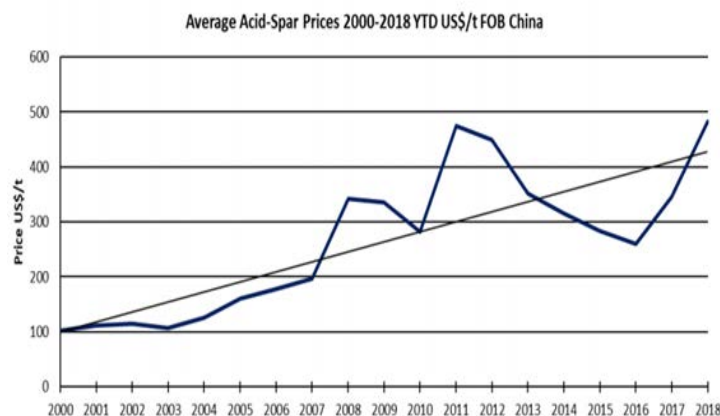
Source: Industry, JM Financial, Bloomberg

Exhibit 2. China continues to beat India in Employee Productivity



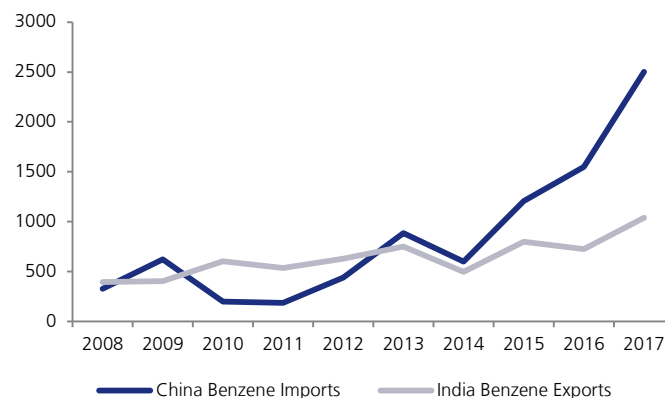
Source: The Conference Board Total Economy Database™ (Adjusted version), November 2018, JM Financial; * converted to 2017 price level with updated 2011 PPPs, JM Financial

Exhibit 3. Rising fluorspar prices to compress margins in 1HCY19



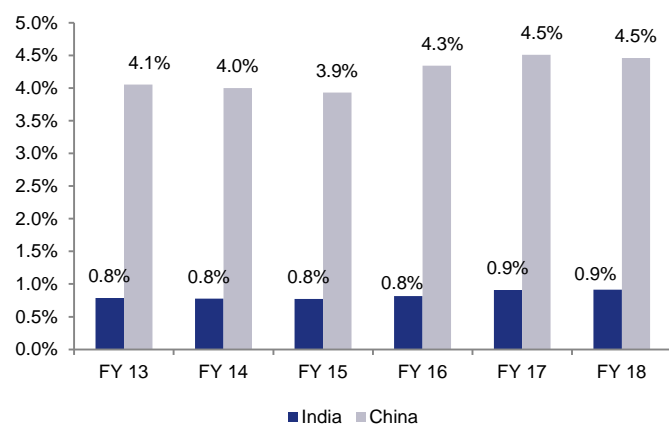
Source: Tertiary Minerals plc., Industry

Exhibit 4. India has advantage in benzene chain as it is a major exporter of raw material



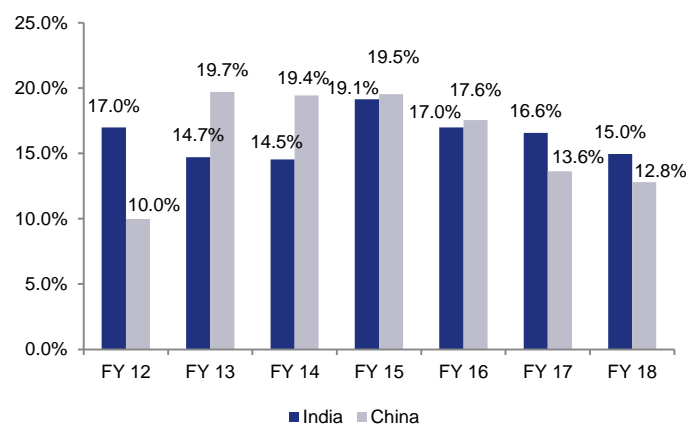
Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 5. India's R&D investments still lag significantly



Source: Bloomberg, JM Financial

Exhibit 6. Indian companies have consistently shown better ROCE



Source: Bloomberg, JM Financial

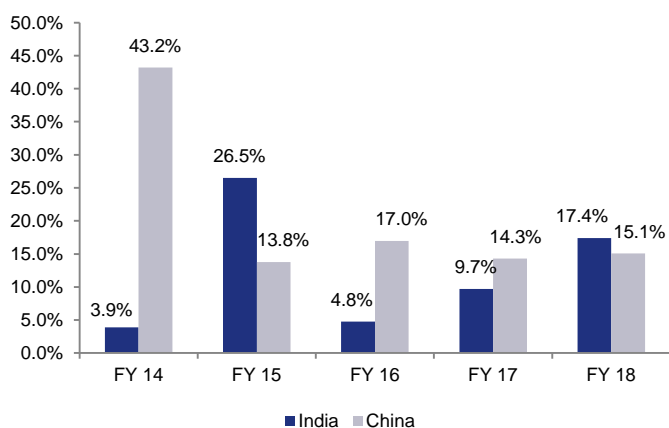
Indian companies may have lost some competitiveness to China

Since our previous report ([Indian Specialty Chemicals-Growth Catalysts](#)), we have two years of updated numbers from Indian and Chinese chemical companies. Based on these, we have an update on the competitive scenario. We have focused on three major areas which can impact Indian companies **1)** Employee costs, **2)** Effluent treatment / Environment costs and **3)** Research and Development (R&D) investments.

1. Employee costs

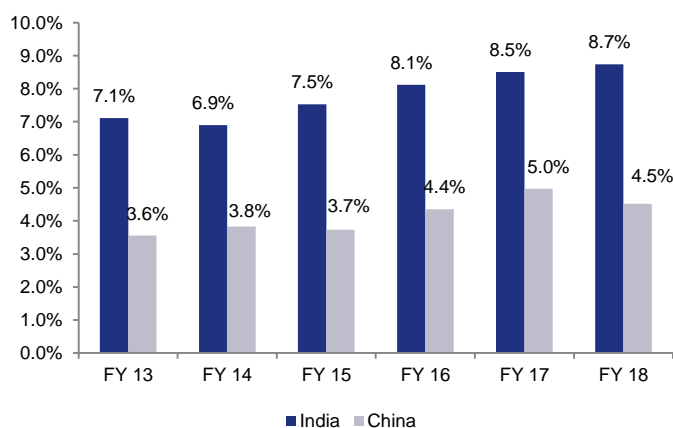
In our previous report, we had analysed how an increase in employee cost could benefit Indian companies. We have referred to our updated numbers on Chinese employee cost and have used broadly same sample we used in our previous report (Exhibit 7 and Exhibit 8 below)

Exhibit 7. Increase in employee cost (YoY%)



Source: Bloomberg, Company, JM Financial

Exhibit 8. Employee Expense as a % of Revenue

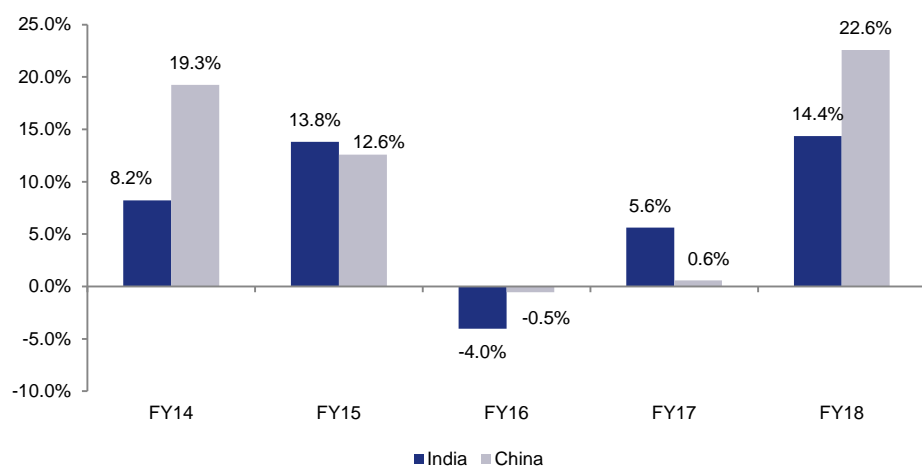


Source: Bloomberg, Company, JM Financial

Based on the above exhibits it is clear that:

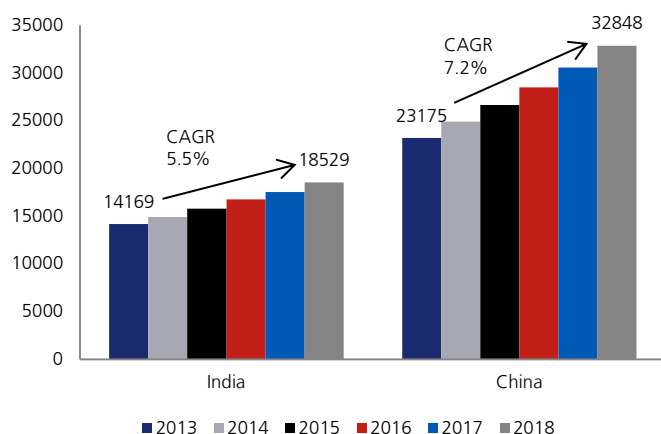
- 1.1. Employee cost for Indian companies has increased at a slower pace than Chinese companies (Exhibit 7) every year (excluding FY15 and FY18) in the last five years. Between FY14 and FY18, the employee cost for Chinese companies registered a CAGR of 22.3% while for Indian companies the CAGR was c.14.2%.
- 1.2. However, over the last two years, the increase in employee costs for Chinese chemical companies has moderated and in FY18 employee expenses for Indian companies grew at a rate faster than Chinese companies (Exhibit 7).
- 1.3. We note that while (as discussed in our previous report), Chinese unskilled labour cost in \$/hour is higher than Indian labour cost / hour, higher productivity / scale means that employee cost as a percentage of revenue is a better matrix to compare Indian and Chinese chemical companies. Employee costs as a percentage of revenue (Exhibit 8) for Chinese companies increased from 3.6% in FY13 to 4.5% in FY18 while for Indian companies; it has increased from 7.1% in FY13 to 8.7% in FY18.
- 1.4. The difference in employee cost as a percentage of revenue between Chinese companies and Indian companies had narrowed from 355 bps in FY13 to 307 bps in FY14. However, it has to be noted that the gap between employee cost as a percentage of revenue for Indian companies vis-à-vis Chinese companies has increased from 307 bps in FY14 to 423 bps in FY18 i.e. Indian company costs increased from 8.5% to 8.7% of sales while Chinese companies costs declined from 5% to c.4.5%.

Interestingly, (refer Exhibit 9 below) sales growth at Chinese companies was very strong (22.6%) against sales growth of Indian companies (14.4%).

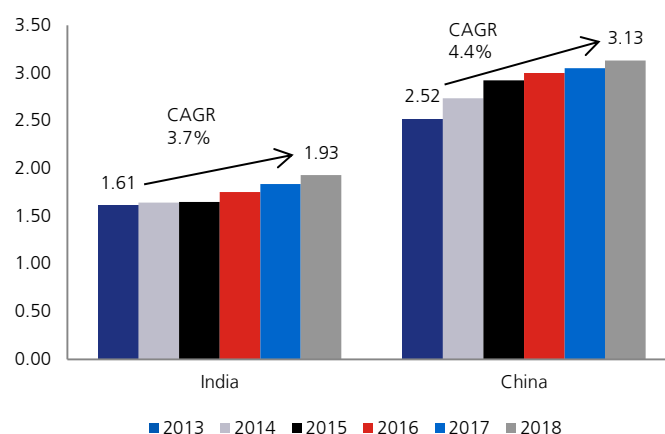
Exhibit 9. Revenue Growth (YoY%)

Source: Bloomberg, Company, JM Financial

- 1.5. In FY17, our sample set of Chinese companies reported a marginal growth in sales revenue (c.0.6%) but in FY18, they reported a sharp (c.22.6%) growth. For our sample of Indian companies, revenue growth was 5.6% and 14.4% in FY17 and FY18 respectively (Exhibit 9). This sharp increase in revenue for Chinese companies in FY18 contributed to the decrease in employee cost (as a percentage of revenue).

Exhibit 10. Productivity (GDP/person employed)* (in USD)

Source: The Conference Board Total Economy Database™ (Adjusted version), November 2018, JM Financial; * converted to 2017 price level with updated 2011 PPPs

Exhibit 11. Hourly labour cost (productivity-adjusted)* (in USD)

Source: The Conference Board Total Economy Database™ (Adjusted version), November 2018, JM Financial; * converted to 2017 price level with updated 2011 PPPs

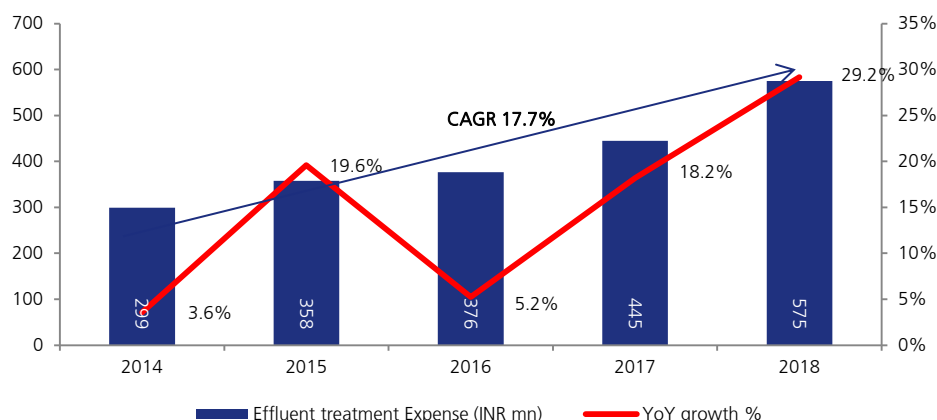
- 1.6. We had, in our previous report, pointed out that Chinese productivity was higher than Indian productivity and this also needs to be addressed by India / Indian companies. The updated employee productivity data shows that India's productivity per person employed registered a CAGR of 5.5% (Exhibit 10) while China's productivity registered a CAGR of 7.2% during the period between FY13-FY18. We note that the lower CAGR for India was on lower base and therefore, the productivity gap has continued to increase.
- 1.7. On the positive side for India, while structurally, productivity has been better in China; labour cost in China is also higher than in India. Hence, one needs to adjust labour cost for productivity (Exhibit 11) to get a correct picture. We note that hourly labour cost (adjusted for productivity) has recorded a CAGR of 3.7%/4.4% for India / China respectively during FY13-FY18. Thus, Indian labour cost continues to be cheaper than China. We note that chemical industry is not very labour intensive and therefore, we have also analysed employee cost as a percentage of sales above. To conclude, in FY18, employee cost gap tilted marginally in favour of China primarily due to higher sales growth. However, the structural trend of labour cost growth is still favourable to India.

2. Effluent treatment / Environment costs :

Chinese companies have seen higher environment cost through investment in effluent treatment facility (ETF) or sewage disposal. However, very few companies reported the amount spent on the above. Of the companies we observed, Zhejiang Longsheng Dyestuff Chemicals Co Ltd was the only company that reported their environment protection cost at 3.86% of the revenue in CY17 (3.49% in CY16). Thus, effluent treatment cost for Zhejiang Longs has continued to increase but is still below effluent treatment costs incurred by AksharChem, an Indian Dyestuff company which has spent c 5% annually from FY15-FY18.

It is also pertinent to note that our sample set of dyes and dyestuff industries recorded a CAGR of 17.7% in effluent treatment costs between FY14-18 (Exhibit 12).

Exhibit 12. Expense towards effluent treatment cost – Indian Dyestuff companies



Source: Company, Industry, JM Financial

Interestingly, in view of the recent opportunity in environmental issues in China, Tsaker Chemical started a separate business unit, environmental technology consultancy services, and reported earnings of RMB 724,000 (0.04% of total revenue in CY17, nil in CY16). This has opened a new area of revenue generation for large companies as part of the core business.

New laws in China – more stringent with higher penalties

On January 1 2019, China's new Soil Pollution Prevention and Control Law came into effect. Under this law, the non-compliant party can be penalised up to Yuan 2mn on the principle of "polluters pay". Furthermore, the law also adopts the protection-first approach whereby third party authentication will be required to justify the pollution prevention methods adopted by the owner. This may make land buying costly for the companies and puts extra operating expense for regular inspection and maintenance of land in use.

Additionally, China has published a draft regulation on the Environment Risk Assessment and Control of Chemical Substances (also being called the China REACH, similar to EU REACH). It is expected that the major impact of this law, if passed, will be on companies that manufacture, processes and trade in chemicals. The law imposes civil, administrative and even criminal liabilities for violations. This law will lead companies to spend more on legal and technical counselling as any non-compliance can attract penalty up to Yuan 2mn and executives may face administrative detention.

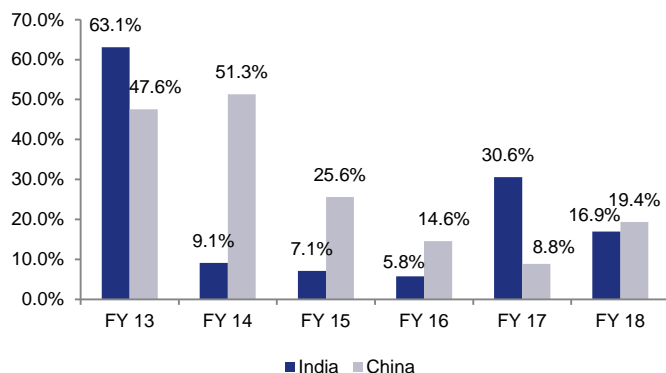
These regulations bring with them expenses towards monitoring and might put costs for rectifications to technology for companies. Hence for medium-term Chinese companies will continue to report an increase in environment compliance expenses.

3. R&D investments

We believe that R&D is the key to long-term sustainable chemical business. However, China has been investing significantly more than India as pointed out in our previous report. This puts Indian companies in long-term disadvantage against Chinese companies.

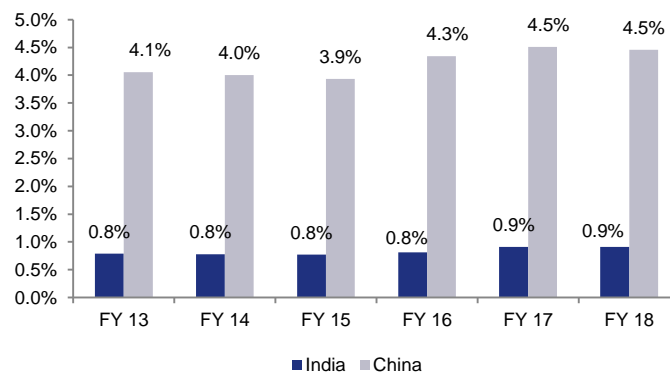
We update the data on R&D expense (Exhibit 13 and 14) from our previous report.

Exhibit 13. Increase in R&D Expenses (YoY%)



Source: Bloomberg, Company, JM Financial.

Exhibit 14. R&D Expenses as a % of Sales revenue



Source: Bloomberg, Company, JM Financial.

Key findings:

- 3.1. During FY17 and FY18, Indian companies have stepped up their R&D investment. However, we note that Indian companies are smaller (in terms of revenue) and are also spending less as a percentage of revenue. Hence, the gap between the two in absolute value of investment in R&D continues to increase. It needs to be seen if Indian companies can increase R&D expense now that they earn sustainable and decent profits.
- 3.2. R&D expense as a percentage of sales revenue (Exhibit 14) for Indian companies has remained flat at c.0.8% till FY16 but increased marginally to c.0.9% since FY17. We note **a)** our analysis is based on the reported P&L numbers and could be impacted if some of the R&D expense is capitalised and **b)** UPL had significant R&D spending in FY13 and FY17 resulting in volatility in R&D spending growth.

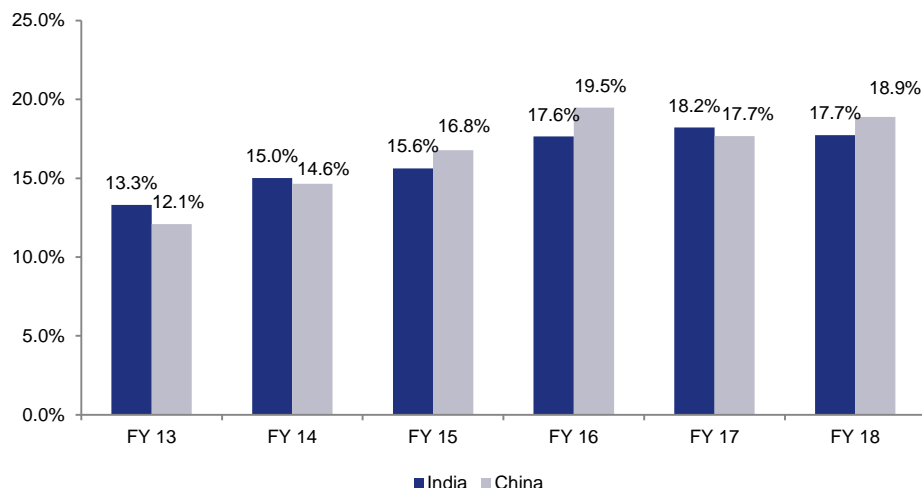
Based on the above three points, since our last report, Chinese companies seem to have recovered some of the competitive edge (particularly in employee cost but need to monitor if that is sustainable) while Indian companies have stepped up their R&D expense.

Given the sharp increase in employee costs for Indian companies, we now analyse if the margins and return ratios of Indian companies vis-a-vis Chinese companies to check for any deterioration.

Margins and return ratios of Indian vs Chinese companies

Chinese companies have typically reported better EBIDTA margins compared to Indian companies but they now have stabilised at around 18% (Exhibit 15). We therefore conclude that EBIDTA margins have been broadly stable since our last report.

Exhibit 15. EBIDTA Margins (%)



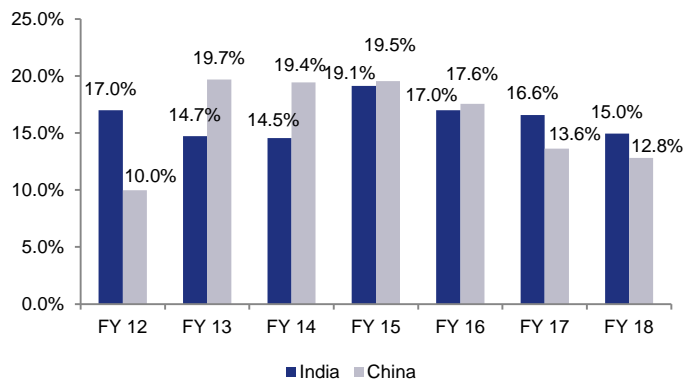
Source: Bloomberg, Company, JM Financial

EBIDTA margins of Indian companies have broadly mirrored the EBIDTA margins of Chinese companies. We believe that the raw material cost for both Indian and Chinese chemical companies have to be broadly similar since the raw materials are likely to be primarily commodities. If the EBIDTA margin is similar and raw material cost is similar, it implies that the operating costs for both the India and China are similar. However, we have noted that Chinese companies have lower employee cost and effluent treatment costs. Therefore, can it be argued that Chinese companies have taken advantage of the lower employee cost and effluent treatment costs to invest in R&D?

RoCE / RoE comparison

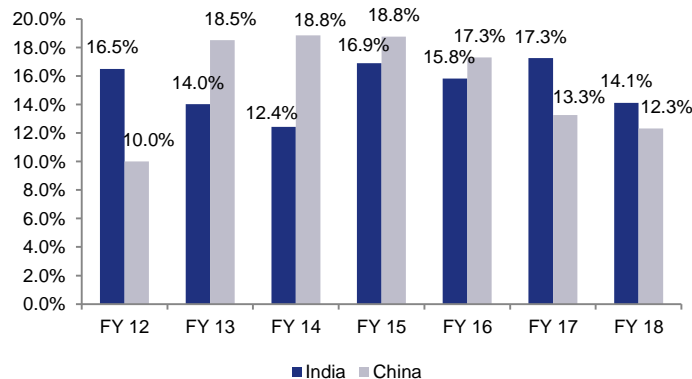
We have previously reported that despite lower EBIDTA margins, Indian companies have generally been able to deliver higher RoE and RoCEs. During FY18, there was a compression in the RoE / RoCE for Indian companies, likely because China sales increased (as reported previously in our section on employee costs).

Exhibit 16. ROCE comparison (%)



Source: Bloomberg, Company, JM Financial

Exhibit 17. ROE comparison (%)



Source: Bloomberg, Company, JM Financial

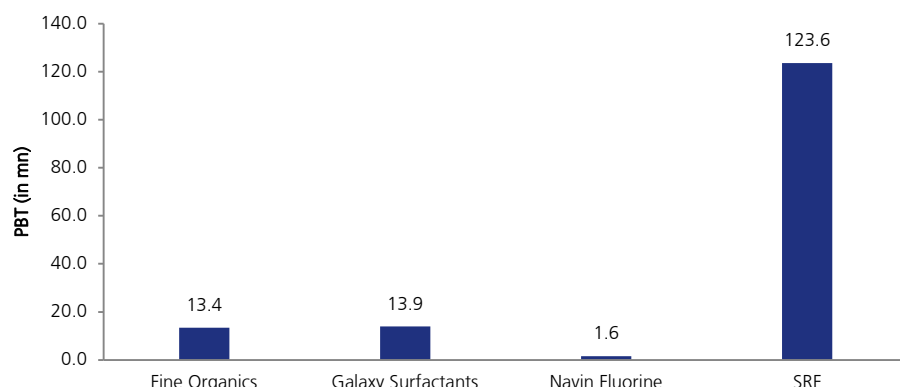
Stricter environmental norms in CY19 (China REACH and land pollution norms) for Chinese companies could increase expenses towards environment protection

(both capital expenditure and operating expenditure) and could provide Indian companies an opportunity to increase R&D expense while maintaining margins.

Indian chemical companies benefit if the rupee depreciates

FY19 has seen the rupee fall to as low as INR/USD 74.39, a fall of 6.41% from the average of INR/USD 69.91 (as on 21 Feb'19). Last year, the average INR/USD was 65. Given such volatility, it is imperative to track the impact of forex fluctuations on EBITDA and PAT. For FY18, companies had reported PBT sensitivity (Exhibit 18). We note that this was the exposure at the end of the reporting period and not exposure during the year. However, assuming that the exposure remains the same, it can help us analyse the impact of rupee depreciation and identify companies which have highest sensitivity to forex.

Exhibit 18. Reported PBT sensitivity on 1 % depreciation (INR mn)



Source: Company, JM Financial

Keeping the same rate as FY18, we estimated the EBITDA impact and PAT impact for FY19. Our estimates show a range of EBITDA impact from 0.12% to 2.55% and PAT impact from 0.12% to 4.28% for 1% depreciation in INR over the average INR/USD (Exhibit 19). A similar appreciation in INR will have an opposite effect for a similar amount.

Exhibit 19. Currency sensitivity on EBITDA and PAT

Company	2018 - Forex (if INR depreciated by 1%)		2019 - Forex (if INR depreciates by 1%)	
	EBITDA Impact	PAT Impact	EBITDA Impact	PAT Impact
Fine Organics	0.77%	0.80%	1.22%	1.38%
Galaxy Surfactants	0.48%	0.73%	0.90%	1.12%
Navin Fluorine	0.08%	0.06%	0.12%	0.12%
SRF	1.36%	2.13%	2.55%	4.28%

Source: Company, JM Financial

Since the companies under our coverage are mainly export-oriented, depreciation of the rupee gives a positive impact at EBITDA and PAT level. Hence, if the rupee continues to depreciate, companies under coverage will benefit from it.

After the update on the financials of Indian chemical sector, in the next part of the report, we analyse which part of the chemical sector could be at risk if Chinese companies were to increase the production. The Chemical sector is very large and it is not feasible to analyse all the chemicals in a single report. Hence, in this report, we analyse only one organic (Benzene), one inorganic (Fluorine) and oleochemicals to check if these chains will be impacted if China increases production.

Analysing some chemical chains for competitive advantage

In general, raw materials for most chemical companies are commodity chemicals and therefore would not provide a competitive edge (excluding the cost of transportation). We analyse four chains (detailed below) to identify Chinese vs. India strategic advantage. We have used HS code-based data for analysing the import-export data in the following chains

- 1) Fluorine-based chemical chain (representative of inorganic chemicals)
- 2) Benzene-based chemical chain (representative for organic chemicals) and
- 3) Oleochemicals
- 4) Dye Intermediates

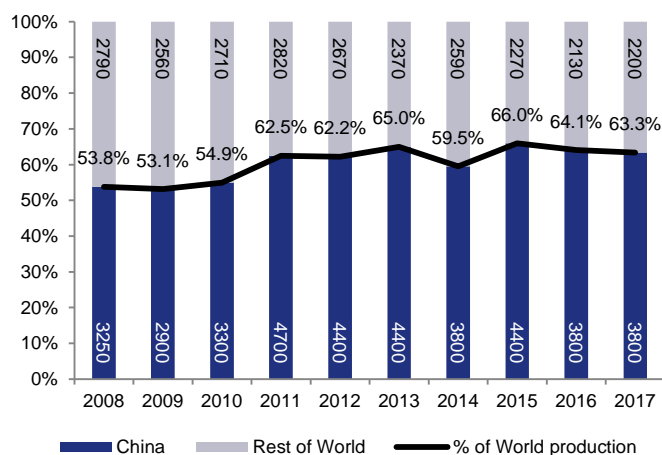
1. Fluorine-chemistry based companies - CY19 outlook: Raw material cost pressure may ease after 2QCY19.

All fluorochemicals are derived initially from the manufacture of hydrofluoric acid (HF). HF is produced from fluorspar. Aluminium industry (which uses acid grade or high purity fluorspar) and steel industry (which uses metallurgical spar) are major users of fluorspar apart from chemicals and fluoropolymers.

Exhibit 20 below provides **a)** world production of fluorspar, **b)** China's production of fluorspar and **c)** the share of China's production in total world production of fluorspar. Exhibit 21 below provides **a)** China's exports of fluorspar (HS code: 292522) and **b)** % of Chinese fluorspar (HS code: 292522) production exported.

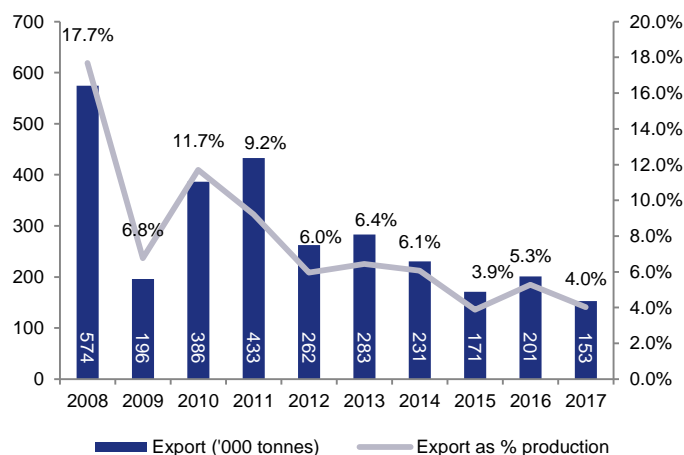
China is one of the top 4 global exporters of Fluorspar and India has been majorly importing from China in the past. But things are changing with the diversification of sourcing from various Indian companies.

Exhibit 20. Fluorspar production ('000 tons)



Source: U.S. Geological Survey, JM Financial

Exhibit 21. China's Fluorspar exports ('000 tons)

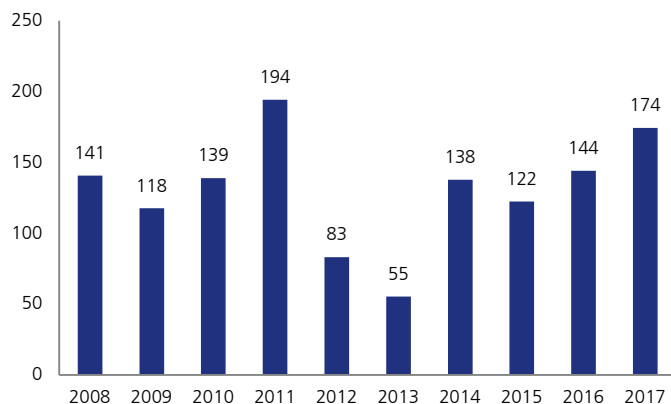


Source: ITC calculations based on UN COMTRADE and ITC statistics, U.S. Geological Survey, JM Financial

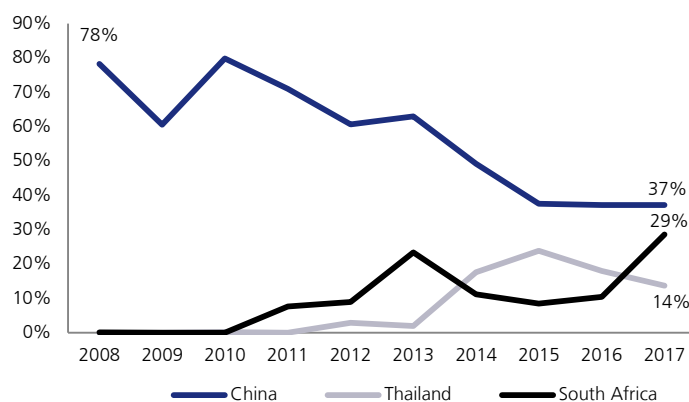
Based on the above, it can be stated:

- 1.1. China dominates the world supply of fluorspar with more than 60% of the world production.
- 1.2. Exports as a percentage of production has declined this can mean that China uses most of the fluorspar domestically. Exports as % of fluorspar production have declined from c. 17.7% in 2008 to c. 4.0% in 2017.

Exhibit 22 and Exhibit 23 (below) provide an overview of fluorspar industry in India. India is an importer of fluorspar (HS code:252922) and imports c. 37% from China (though India has diversified the imports over the last decade)

Exhibit 22. Total fluorspar imported by India ('000 tons)

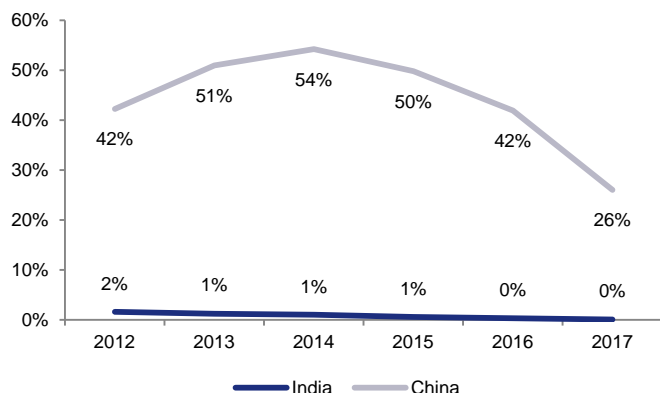
Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 23. Major exporters of fluorspar to India (by volume)

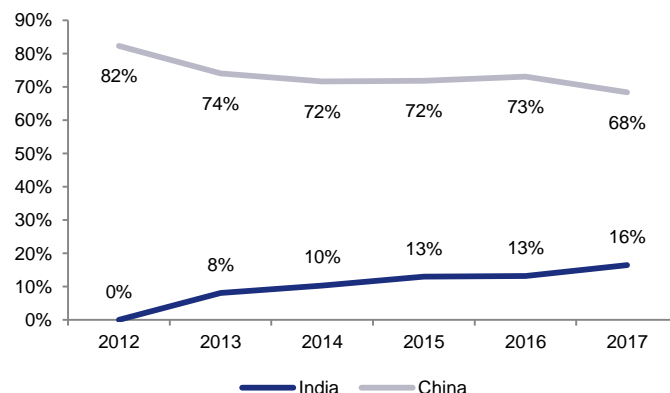
Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

1.3. Clearly, China has a natural advantage in fluorine chain given the domestic availability of fluorspar. Therefore, Indian companies may be able to compete in the higher value-added specialty chemicals and CRAMS business, but China is likely to have a competitive edge in inorganic fluorides.

To substantiate the thesis that China has an edge in inorganic fluorides, we reviewed the data on global aluminium fluoride (HS code: 282612) and refrigeration gas (R-22, HS code: 290371) export. China is the largest exporter of both fluoride of aluminium (Exhibit 24) and refrigeration gas (Exhibit 25).

Exhibit 24. Aluminum fluoride export data shows China's might

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 25. India increasing chlorodifluoromethane exports

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Thus Chinese fluorine companies have a strategic advantage in organic fluorides and refrigeration gas business and Indian companies may only have to compete for higher value-added products like specialty chemicals, CRAMS, etc.

We now analyse the outlook for fluorspar and fluorine in 3 sections – short-term (next few quarters), medium-term (from next few quarters to say five years) and long-term (beyond five years)

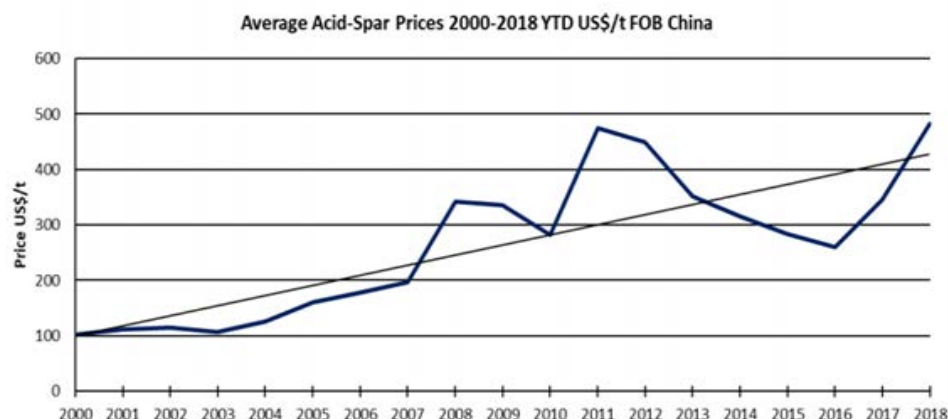
1.3.1. Short-term – next few quarters:

Over the next few quarters (i.e. early CY19), the outlook for fluorspar companies is likely to be facing higher Fluorspar prices. This is because China has increased focus on environmental issues related to both the fluorine industry and fluorspar mining. Recently, it announced a shutdown of aluminium capacity by 30% from mid-Nov 2018 to mid-Mar 2019. Additionally, construction of a sizable alumina smelter plant was cancelled. Similarly, many steel companies had to shut down due to environment

inspection. These factors have resulted in a decrease in domestic demand for fluorspar within China.

This should have resulted in lower fluorspar prices, but China has also cracked down on fluorspar mining and this crackdown on mining is likely to continue until 1QCY19. The crackdown has resulted in higher cost for Chinese fluorspar producers and a shutdown of some fluorspar mines during winter. Consequently, fluorspar prices have risen to the highest in the last two decades (Exhibit 26).

Exhibit 26. Fluorspar prices at seven-year high



Source: Tertiary Minerals plc., Industry

The increase in fluorspar prices may likely take some time to be passed through to consumers and therefore, fluorine companies are likely to face margin pressures in 1QCY19. Prices could stabilise from 2QCY19 if Chinese fluorspar production starts ramping up post winter.

1.3.2. Medium-term –up to about five years:

However, if we look at beyond next few quarters, a fluorspar mine was commissioned in Canada in CY18 (which will continue to ramp up production in CY19) and South African fluorspar production (which is expected to start in CY19) would also provide some relief in 2HCY19. Additionally, Chinese production cuts will be reversed post winter ramping up production. Hence, we see lower price pressures in 2HFY20.

Therefore, if we consider medium-term outlook for fluorspar, Chinese companies will have a strategic advantage in the medium-term on the back of reserves.

1.3.3. Longer-term – beyond five years:

We note that while China is the largest producer of fluorspar globally (Exhibit 20), it has just c.10 year reserve / production ratio (Refer our [Navin Fluorine Initiating coverage report](#) page no. 26). We also note that Kenya, South Africa and Mexico have significant fluorspar reserves that are almost similar in size to Chinese reserves. Hence, later (say over 5/7 years), as other countries develop fluorspar reserves; Chinese companies may not have a structural advantage.

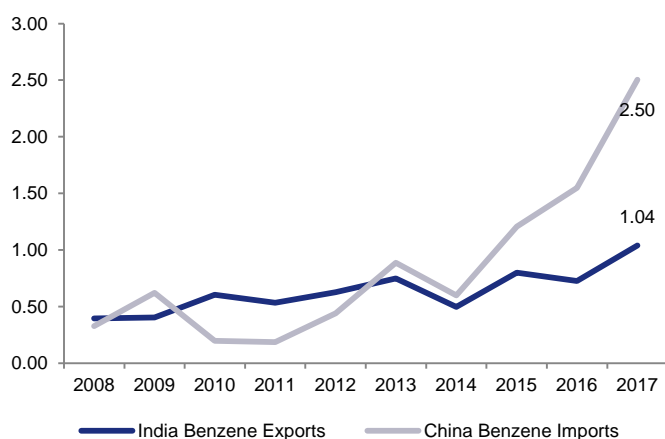
2. Benzene chain: Crude price to drive raw material cost but China does not have a strategic advantage

Next, we analyse benzene as a major organic chemical. We note that while this analysis is for benzene, it could be extrapolated to other organic chemicals.

Benzene is derived from crude oil (during the refining process) and India has a surplus refining capacity (vis-à-vis the domestic demand). Therefore, India is also surplus in benzene. In fact, benzene (HS code: 290220) is one of the highest exported organic chemicals from India with exports of >10 lakh tons in CY17. This translates to c.20% of the total volume of organic chemicals exported from India.

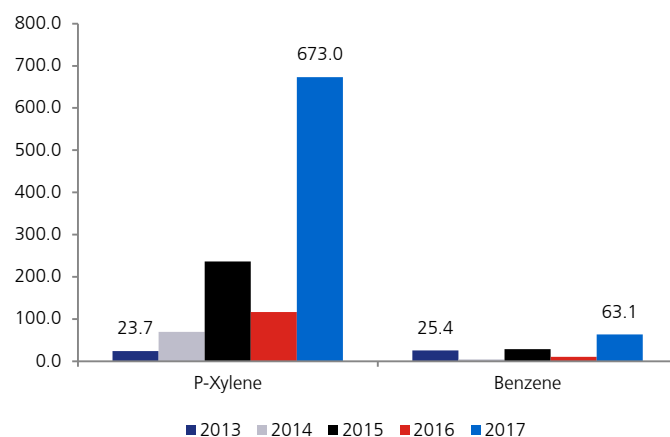
On the other hand, for China, benzene is one of the highest imported products. During CY17, China imported c.25 lakh tonnes of benzene (Exhibit 27) which is c. 4.6% of the total volume of organic chemicals imported. ICIS in its China Outlook 2019 report expects Benzene consumption to increase by 8.5% over CY18 and reach 15.7m tonnes by CY19 based on growth in downstream capacity expansion in styrene monomer, phenol, acetone and caprolactum sectors. ICIS also expects output to increase by 7.4% YoY and reach to 13.2m tonnes by CY19. Further, China's benzene capacity is projected to expand by c.15% to reach 20.4m tonnes, which can provide sufficient capacity to cater to growing domestic consumption beyond 2019.

Exhibit 27. Benzene: India exports while China imports (mn tons)



Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

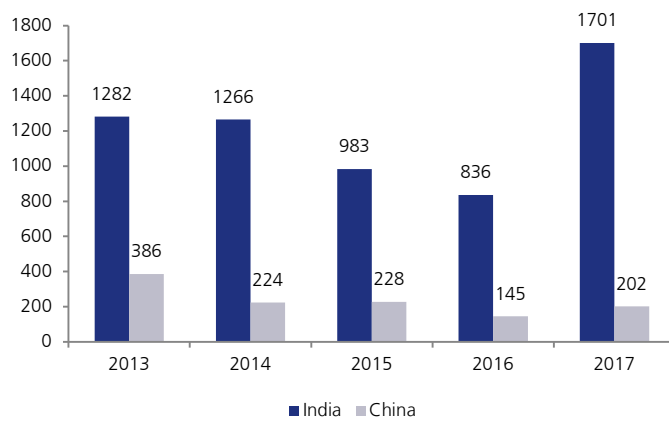
Exhibit 28. China's import from India (USD mn)



Source: Chemical Weekly, JM Financial

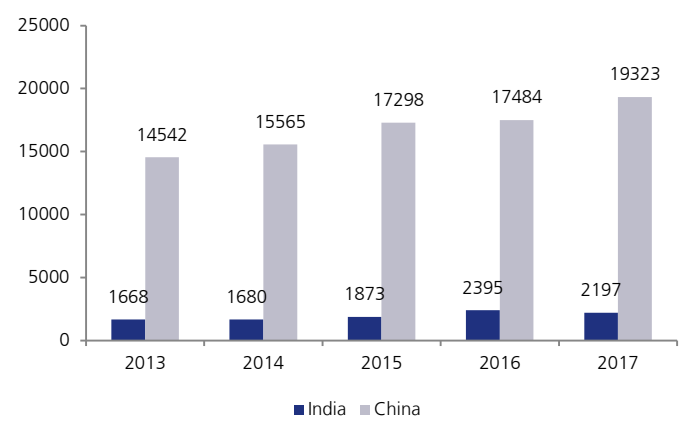
We also note that, one of the derivatives of benzene - para-xylene (HS Code: 290243), which is used to make PET, has seen a sharp increase in imports into China from India (Exhibit 28). This could be due to an increase in the domestic Chinese demand for PET and commissioning of Reliance's PX plant in Jamnagar. We will also discuss a little about cyclic hydrocarbons (HS Code: 2902) which are primarily derived from benzene. India has been an exporter of cyclic hydrocarbons (excluding benzene) for the last 5 years (Exhibit 29 and 30) while China has been an importer for the past 5 years. This would substantiate our argument that Indian organic (like Benzene) intermediate manufactures were globally competitive even before the recent environmental issues in China.

Exhibit 29. Export of Cyclic hydrocarbons ('000 tons)



Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 30. Import of Cyclic Hydrocarbons ('000 tons)



Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

We can therefore conclude that China does not have a strategic advantage in benzene and its derivatives. Thus, Indian companies in the benzene chain are likely to be less impacted if Chinese production restarts.

3. Oleochemical industry – neutral to positive for India

The derivatives of palm oil, palm kernel oil, and rapeseed oil are important raw materials for oleochemical companies in India (Fine Organics, Galaxy Surfactants). Other oils used by oleochemical companies include mustard oil, castor oil, soyabean oil, and other vegetable oils. We focus on palm oil and rapeseed oil (and their derivatives) as these are the largest consumed oils for industrial use.

3.1. Palm oil and its derivatives.

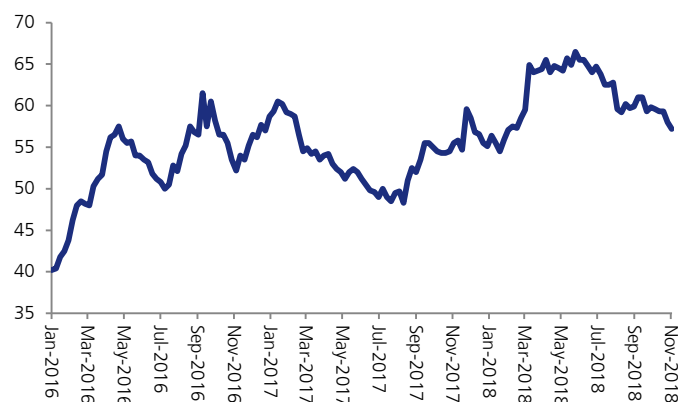
India and China both import a major portion of palm oil from Malaysia and Indonesia leaving neither country at a strategic advantage. Further, adding shipping costs would make it unviable to ship raw palm oil or its derivatives to China and subsequently ship back derivative-based chemicals into India. Hence, China is not a big player in Indian domestic palm oil derivatives. We will focus on lauryl alcohol to validate that China is not a big player in the Indian palm oil derivative market.

3.1.1. Lauryl Alcohol

Lauryl alcohol is a derivative of palm kernel oil and mainly used as a surfactant (cleansing agent). It is used in soaps, shampoos, shower gels, cosmetics and some pharmaceuticals. It is an important raw material for Galaxy Surfactants.

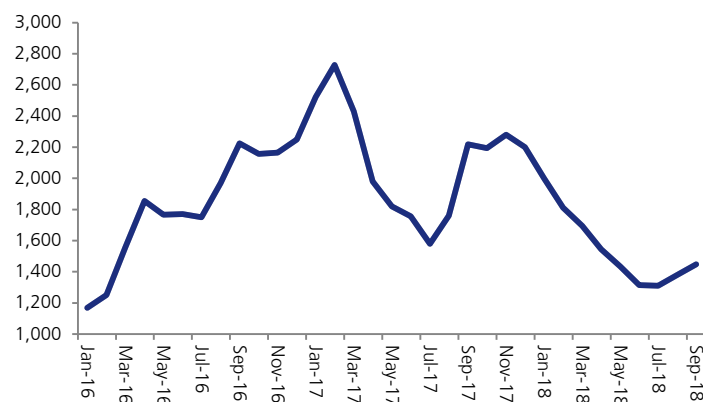
The price of lauryl alcohol has been volatile in the last three years (Exhibit 32). China and India both have a significant impact on prices on back of growing demand of the end user surfactant industry.

Exhibit 31. Palm oil price (INR/kg)



Source: Chemical Weekly, JM Financial

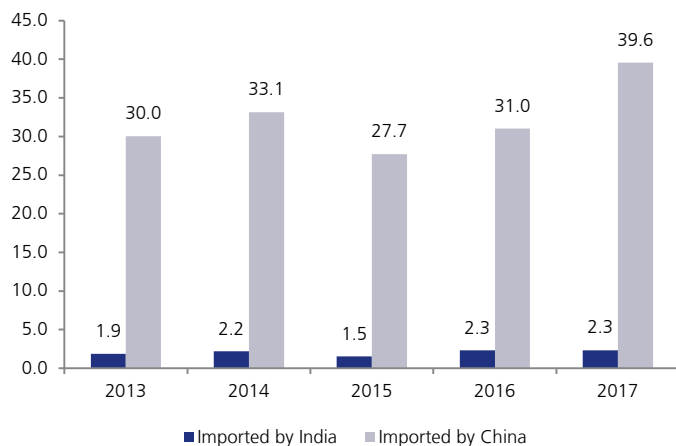
Exhibit 32. Lauryl alcohol price (FOB SE Asia) in USD per ton



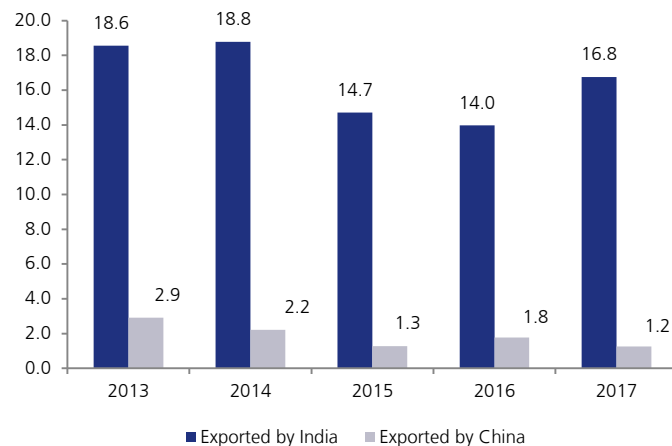
Source: ICIS prices, Company, JM Financial

In line with our thesis that China does not have a strategic advantage in this chain, Exhibits 33 and 34 (data for HS Code: 290517) reflect that China is a net importer of fatty alcohols (including lauryl alcohol) while India is a net exporter. In fact, India exports small quantities of fatty alcohols to China.

While China may find it difficult to supply lauryl alcohol to India, globally, both countries can be competitive (depending on the freight from China / India to the destination country). Thus, India could have an advantage exporting to Africa and Middle East (AME) regions. Galaxy Surfactants intends to focus on Africa, the Middle East and Turkey. (Galaxy has also established a manufacturing base in Egypt).

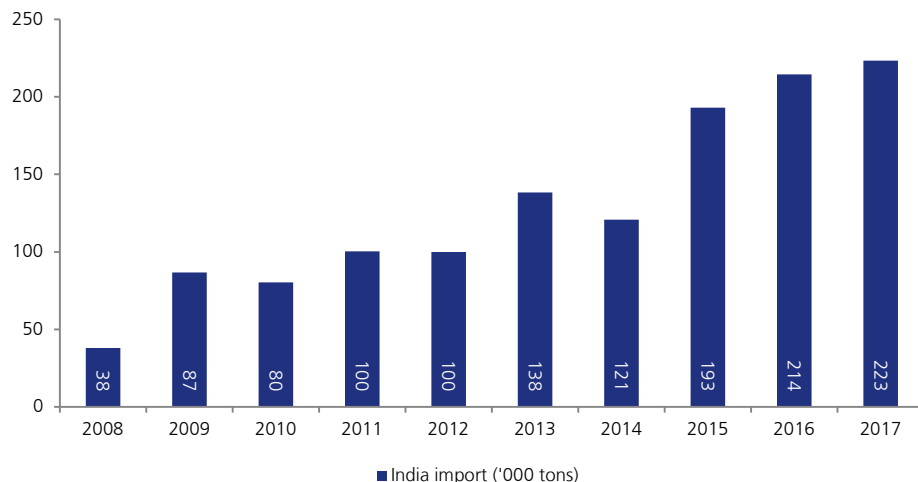
Exhibit 33. Import of Fatty Alcohol (incl. Lauryl alcohol) ('000 tons)

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 34. Export of Fatty Alcohol (incl. Lauryl alcohol) ('000 tons)

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Interestingly, linear alkylbenzene sulfonic acid (LABSA) can be used to make anionic surfactants (another type of surfactant) which are used in detergent powders and bars. LABSA is a widely used product in India and India's import of linear alkylbenzene (LAB), an important raw material, has been increasing (Exhibit 35). Therefore, while India exports Benzene (as noted previously), India imports Benzene derivative LAB. India imports LAB mainly from Middle East, Thailand, Egypt, and China. Therefore, China has a strategic advantage for LABSA based surfactants.

Exhibit 35. India's LAB import has been growing YoY

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

However, in our coverage universe, only Galaxy Surfactants has some dependence on LAB based products and that too not for Indian markets – it uses LABSA in Egypt. Hence, even if Chinese manufacturing increases, Galaxy Surfactants is unlikely to be impacted.

3.1.2. Lauric Acid

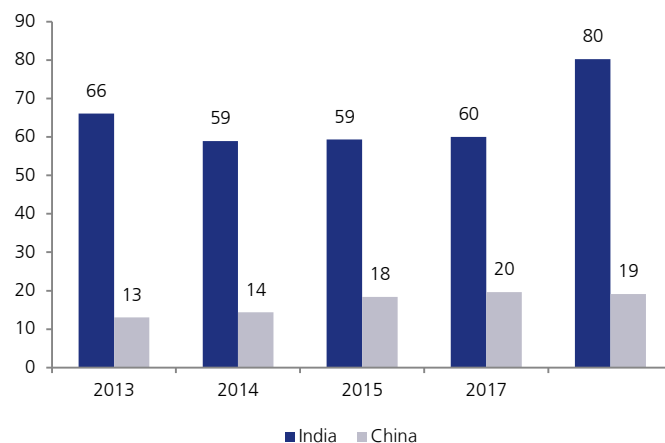
Lauric acid, a fatty acid, is also a derivative of palm oil and is used for various purposes by Fine Organics. Exhibit 36 and 37 shows the dynamics of import and exports of fatty acids (HS Code: 291570).

Exhibit 36. Import of Fatty acid – India vs China ('000 tons)



Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 37. Export of Fatty acid – India vs China ('000 tons)



Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Based on the above exhibits, we observe that India is a net exporter and China, a net importer of fatty acids. Thus, even Indian lauric acid-based companies are unlikely to be impacted if Chinese manufacturing comes back.

3.2. Rapeseed oil and its derivatives

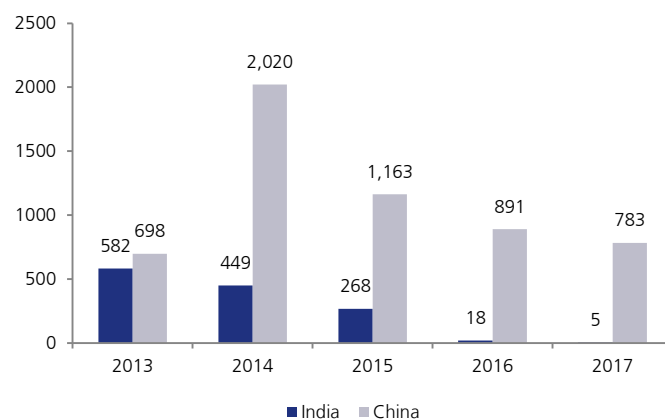
Fine Organics uses derivatives of rapeseed oil and several other vegetable oils. There is usually a lack of clarity between rapeseed and canola since both plants have bright yellow colored flowers. However, the key difference is that canola was created through traditional cross-breeding (in the 1970s) to remove the pungent odour (present in rapeseed oil) by removing glucosinolates and erucic acid. Canola oil is used mainly for cooking while rapeseed is used primarily for animal feeds and other industrial applications (very small quantity is used for cooking).

Exhibit 38. Rapeseed oil price (INR/kg)



Source: Chemical Weekly, JM Financial

Exhibit 39. Rapeseed Oil imports – India vs China (tons)



Source: Indexmundi (citing: United States Department of Agriculture), JM Financial

Rapeseed oil prices have been fluctuating and India's imports (HS code: 15149990) have declined to practically zero (Exhibit 39).

Hence, we believe that even if Chinese manufacturing comes back, it is unlikely to impact rapeseed oil-based companies like Fine Organics.

4. Dyes and dyes intermediates – integrated players can grow but China still a risk in dye intermediates

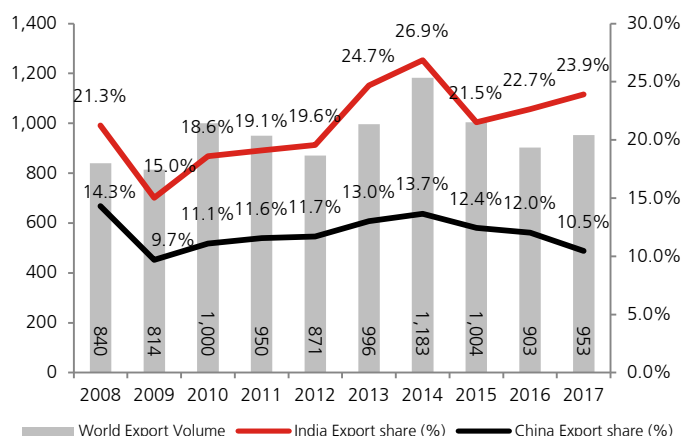
Dye and dyes intermediates supply to end-user industries like textile, plastics, paints etc. According to the Centre for Advance Trade Research, the global dye and dyestuff market in 2017 was USD 5.7bn. Textile sector is a major end-user with c.80% of the total production. The market which was earlier consolidated in Europe has moved to China and India. Asia-Pacific has a c.40% of the global share, while India accounts for 7% of the global production. Globally, organised segment has a share of c.65% while in India, organised sector share is c.50%.

4.1. Dyes

Dyes can be further classified into various types like reactive, organic, disperse, azo, etc. In this report, we analyse two types of dyes – organic and reactive dyes.

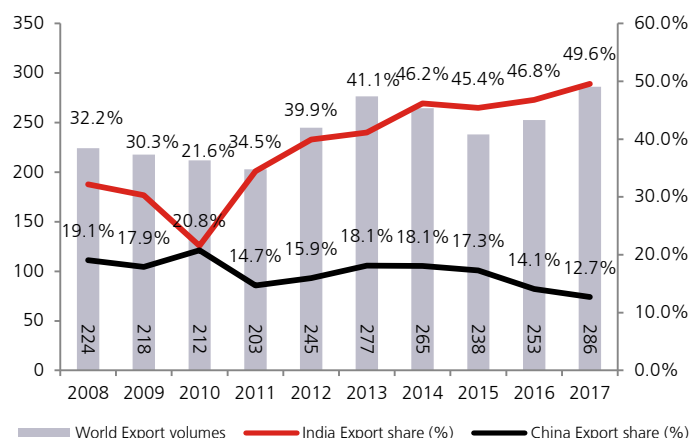
Organic dyes are sourced from natural things like plants and add richness to natural materials like wool, cotton, and leather etc. On the other hand, reactive dyes are a class of dyes that attach themselves to their substrates by chemical reaction to form covalent bonds and are much less likely to be removed by washing easily in comparison.

Exhibit 40. Exports of Organic Dyes



Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 41. Exports of Reactive Dyes



Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

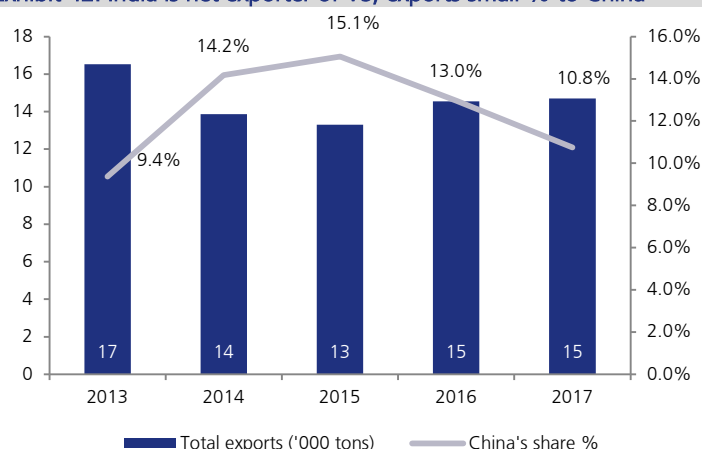
Based on Exhibit 40 and 41, we can conclude:

- 4.1.1. India is a major exporter of organic dyes (HS Code: 320412) and reactive dyes (HS code: 320416), exporting more than China in both these segments. This was true even during the CY08-CY11 when China had not yet restricted production.
- 4.1.2. After 2015, India is growing its export share while China's export share continues to decline. Therefore, India has benefitted after China restricted production on environmental grounds.

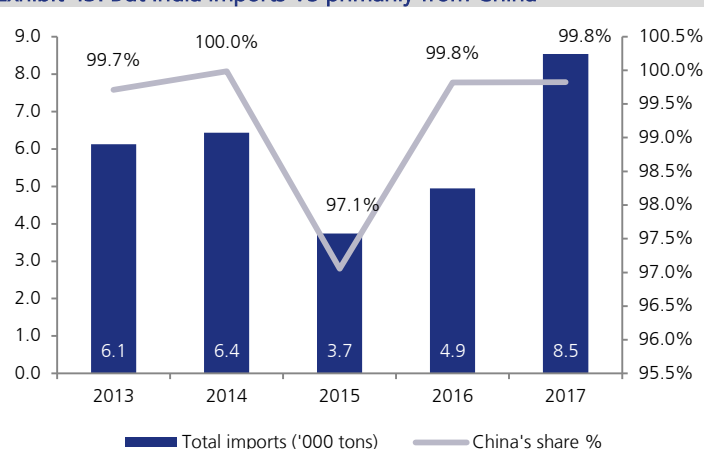
Therefore, we believe that organic and reactive dye manufacturers may not be affected much even if China relaxes environment norms to result into increase in Chinese production.

4.2. Dye intermediates

Dye intermediates are products like H-acid and vinyl sulphone which are used to make dyes. According to industry sources, India has vinyl sulphone (VS) / H-acid production capacity of 67,400 MTPA / 43,700 MTPA while China has a vinyl sulphone (VS) / H-acid production capacity of 107,000 MTPA / 89,000 MTPA respectively. Exhibit 42 and 43 (below) provide data on import and export of vinyl sulphone (HS Code: 29041040).

Exhibit 42. India is net exporter of VS; exports small % to China

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 43. But India imports VS primarily from China

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

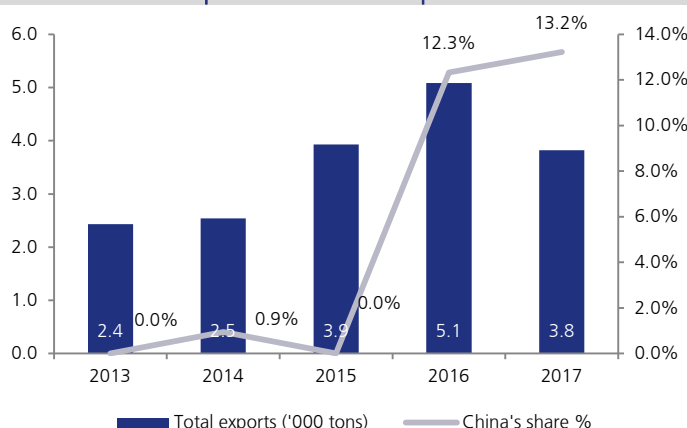
From the above charts

4.2.1. India is a net exporter of VS and exports c.10-15% of the total exports to China. Most of the exports are to South Korea (c.40% of total exports). Interestingly, our data shows that exports to South Korea increased by c. 150% between CY13 to CY17.

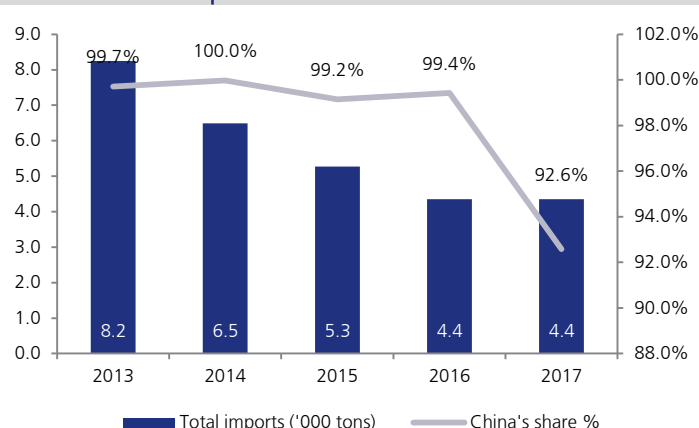
4.2.2. However, almost the entire imports of VS into India come from China.

To conclude, China has large capacities in VS (c. double that of India's capacity) and more importantly, industry participants informed that China's capacity is concentrated while India's capacities are more fragmented. Thus, China has an advantage in VS not only in terms of scale but also because India imports most of its VS requirements from China.

Similarly, for H-acid (HS Code: 29222160) the numbers give an interesting story (Exhibit 44 and 45).

Exhibit 44. H-acid exports and share of exports to China from India

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Exhibit 45. H-acid imports of India

Source: ITC calculations based on UN COMTRADE and ITC statistics, JM Financial

Based on the above we can conclude:

4.2.3. India has broadly increased its H Acid export volume (except for CY17) and share and has significantly increased exports to China. However, this was primarily during the period of CY16/17 when environmental reasons had impacted Chinese production.





4.2.4. The total imports (Exhibit 45) have declined from c.8,200 tonnes to c.4,400 tonnes. This could be on the back of new capacity additions as Indian companies took advantage of Chinese curtailment to increase capacities.

4.2.5. Even after the decline in India's overall imports of H-acid, India still imports most of its H-acid from China.

Again, China has almost double the capacity of India and Chinese capacities are fairly concentrated while Indian capacities are fragmented. Clearly, Indian H-acid manufacturers can be at risk if Chinese capacities come back on stream.

Based on the above analysis, we provide a quick overview of the impact on some of the companies under our coverage.

Exhibit 46. The industrial situation if China comes back...

Company	Chemistry followed	Effect on China coming back	Impact	Remark
Fine Organics	Oleochemistry		Zero	Technical expertise and independent product profile. Capacity to be doubled soon.
Galaxy Surfactants	Oleochemistry		Zero	Weak overlap on final products and expertise in the value-chain with planned capacity expansion
Navin Fluorine	Fluorine		Medium	China's stronghold in raw material (Fluorspar) is compensated by Navin's expertise in the Fluorine chemistry (CRAMs) with planned capacity expansion but margin pressure will remain till 1H CY19.
SRF	Fluorine		Low	China's stronghold in raw material (Fluorspar). SRF has c. 50% of revenues coming from non-fluorine businesses.

Source: JM Financial, Industry

After identifying industries that could face a challenge if Chinese capacities come back either after environmental norms are relaxed or environmentally cleaner capacities are introduced, we need to look at the employee strength of India compared to China to have a better outlook for the Indian chemical sector.

SRF Ltd | BUY

Capacity expansion to lead the growth

SRF is a multi-business entity engaged in the manufacturing of industrial and specialty intermediates. Equipped with state-of-the-art R&D facilities, SRF has filed 155 patents for R&D and technology so far, of which 23 have been granted. SRF has 4 major businesses – Chemicals, Packaging films, technical textiles, and others which contributed c.28%, 29%, 36%, and 7% resp. in 9MFY19. SRF has 12 manufacturing plants in India, with 2 in Thailand and 1 in South Africa and export to more than 75 countries. Segmentally, Chemicals business (CB) has seen some margin pressure on account of increasing prices of fluorspar (as mentioned previously), a key raw material. Subsequently, SRF management said that CB in 3QFY19 was impacted due to higher depreciation and fixed costs on account of new facilities. Packaging Films business (PFB) is usually cyclical and is impacted by volatility in raw material (polyethylene terephthalate, a derivative of crude oil) prices. Technical textile business (TTB) is growing with portfolio improvement with higher sales of value-added products. SRF reported 3QFY19 revenue of INR 19.6bn (+3% QoQ/ +41% YoY / +2% JMFe) and EBITDA of INR 3.3bn (-1% QoQ/ +43% YoY) missing JMFe by 6% on higher other expense while PAT was reported at INR 1.7bn (+10% QoQ/ +26% YoY). SRF also announced Capex of INR 2.2bn for 2 capacity expansion projects over 3 year period. We are positive about revival in specialty chemicals business and strategy to grow through capacity expansion. We maintain BUY with TP of INR 2250 (previous TP of INR 2000).

- **Capacity expansion plans and quarterly result takeaways:** (i) RoCE for CB/PFB/TTB was calculated at 5%/11%/20%. The low return in CB business is due to lagging recovery in agrochemicals and pharma industry. (ii) CB revenue was at INR 5.9bn (+8% QoQ/ +46% YoY/ -2%JMFe). A new CB plant was recently commissioned which is expected to start contributing from 4QFY19. Also, SRF announced plan to invest INR 1.4bn for CB capacity expansion at Dahej. (iii) PFB revenue was at INR 7bn (+1% QoQ/ 63% YoY/ -3% JMFe) and the strong YoY growth may be due to contribution from new capacities and focus on value-added products. (iv) TTB revenue was 5.5bn (+1% QoQ/ +21% YoY/ -7% JMFe) as the segment operated at optimal capacity utilisation. SRF plans to invest INR 800mn for capacity addition in spinning and textile capacity in Manali and Gwalior over next 3 years. (v) Others business had revenue of INR 1.3bn (-4% QoQ/ +13% YoY).
- **Growth drivers:** (i) SRF is expected to grow EBITDA at c.25% over the medium term. (ii) In TTB, specialty films constitute c.70% to the revenue with a margin that is 15% higher than commodity films (iii) SRF announced plans to double the refrigeration gas capacity from c.25,000 TPA to c. 50,000 TPA at an investment of INR 3.8bn. (iv) Hungary and Thailand capacities for packaging films are expected to be commissioned in Mar '20 and Sep '20 respectively.
- **Maintain BUY with TP of 2250:** We maintain BUY, valuing SRF based on SOTP at EV/EBITDA of (i) Technical Textile at 6x, (ii) specialty chemicals at 12x (iii) packaging films to 7x (iv) Refrigerant gases (134a) at 10x, and (v) Others at 6x , to arrive at TP of 2250. Key risks to our estimates include delayed ramp-up in chemicals segment.

Financial Summary					(INR mn)
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Net Sales	47,394	55,108	74,956	85,263	96,464
Sales Growth (%)	4.8	16.3	36.0	13.8	13.1
EBITDA	9,694	9,062	13,397	15,726	17,522
EBITDA Margin (%)	20.1	16.2	17.6	18.2	17.9
Adjusted Net Profit	5,150	4,617	6,079	7,994	9,543
Diluted EPS (INR)	89.7	80.4	105.9	139.2	166.2
Diluted EPS Growth (%)	19.8	-10.3	31.7	31.5	19.4
ROIC (%)	10.7	8.0	11.1	12.9	14.4
ROE (%)	17.3	13.7	15.9	18.1	18.4
P/E (x)	25.1	28.0	21.3	16.2	13.6
P/B (x)	4.1	3.7	3.2	2.8	2.4
EV/EBITDA (x)	15.4	17.4	11.7	9.6	8.2
Dividend Yield (%)	0.5	0.5	0.6	0.7	0.9

Source: Company data, JM Financial. Note: Valuations as of 27/Feb/2019



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Recommendation and Price Target

Current Reco.	BUY
Previous Reco.	BUY
Current Price Target (12M)	2,250
Upside/(Downside)	-0.1%
Previous Price Target	2,000
Change	12.5%

Key Data – SRF IN

Current Market Price	INR2,253
Market cap (bn)	INR129.5/US\$1.8
Free Float	39%
Shares in issue (mn)	57.4
Diluted share (mn)	57.4
3-mon avg daily val (mn)	INR929.1/US\$13.0
52-week range	2,447/1,530
Sensex/Nifty	35,905/10,807
INR/US\$	71.2

Price Performance

%	1M	6M	12M
Absolute	8.5	14.2	18.4
Relative*	8.9	23.1	13.2

* To the BSE Sensex

JM Financial Research is also available on:
Bloomberg - JMFR <GO>,
Thomson Publisher & Reuters
S&P Capital IQ and FactSet

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

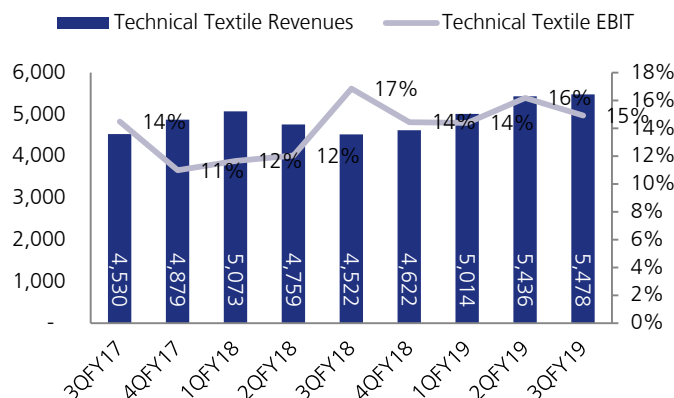
3QFY19 result

Exhibit 47. Operational and financial highlights

		3QFY19	E3QFY19	Variance	2QFY19	QoQ	3QFY18	YoY
		Actual	Estimate		Actual		Actual	
Segmental Performance								
Technical Textile Business Revenues	INRmn	5,478	5,876	-7%	5,436	1%	4,522	21%
Technical Textile Business EBIT	INRmn	817	801	2%	880	-7%	763	7%
Technical Textile Business EBIT Margins	%	15%	14%	129bps	16%	-128bps	17%	-194bps
Chemicals & Polymer Business Revenues	INRmn	5,860	6,002	-2%	5,420	8%	4,018	46%
Chemicals & Polymer Business EBIT	INRmn	766	1,200	-36%	630	22%	733	5%
Chemicals & Polymer Business EBIT Margins		13%	20%	-691bps	12%	146bps	18%	-516bps
Packaging Films Business Revenues	INRmn	7,026	7,229	-3%	6,959	1%	4,302	63%
Packaging Films Business EBIT	INRmn	881	1,077	-18%	1,204	-27%	629	40%
Packaging Films Business EBIT Margins	%	13%	15%	-237bps	17%	-476bps	15%	-209bps
Others	INRmn	1,292			1,353	-4%	1,140	13%
Others EBIT	INRmn	121			123	-2%	121	0%
Others EBIT%	%	9%			9%	24bps	11%	-126bps
Financial:								
Total Income	INRmn	19,640	19,346	2%	19,154	3%	13,971	41%
Gross Margin		42.6%	43.1%		42.1%		47.4%	
Raw Material Consumed	INRmn	11,880	10,802	10%	10,860	9%	7,518	58%
Purchase of Goods in Trade	INRmn	120	208		124	-3%	96	25%
(Increase)/ Decrease in Stock	INRmn	-732	0		108	-780%	-263	179%
Power & Fuel	INRmn	1,585	1,705	-7%	1,618	-2%	1,265	25%
Employee benefits expenses	INRmn	1,305	1,354	-4%	1,259	4%	1,199	9%
Miscellaneous Expenses	INRmn	2,173	1,741	25%	1,859	17%	1,840	18%
Operating Expenses	INRmn	16,330	15,811	3%	15,827		11,655	
EBITDA	INRmn	3,310	3,535	-6%	3,327	-1%	2,316	43%
EBITDA margin	%	16.9%	18.3%		17.4%		16.6%	
Depreciation	INRmn	932	878	6%	880		770	
EBIT	INRmn	2,378	2,657	-11%	2,447	-3%	1,546	54%
Other non business Income	INRmn	154	87	77%	-34	-561%	420	NA
Interest Expense	INRmn	544	510	7%	500		239	
PBT	INRmn	1,988	2,235	-11%	1,914	4%	1,727	15%
Taxes	INRmn	508	492	3%	485		415	
Tax as % of PBT	%	16.7%	22.0%	-534bps	25.4%	18bps	24.0%	152bps
PAT	INRmn	1,657	1,743	-5%	1,512	10%	1,312	26%
PAT margin	%	8.4%	9.0%		7.9%		9.4%	
EPS	`/share	28.83	30.36	-5%	26.31	10%	22.85	26%

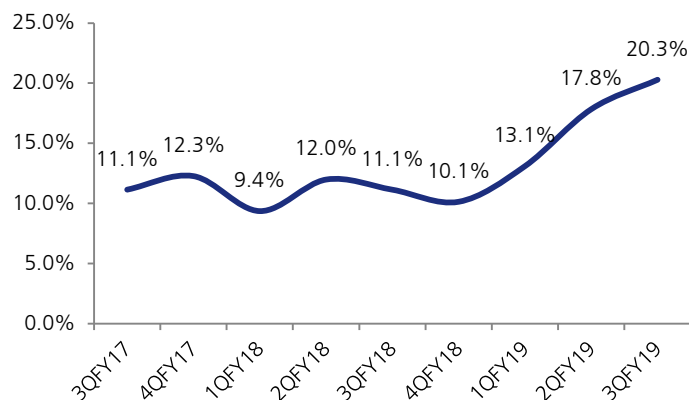
Source: Company, JM Financial

Exhibit 48. TTB revenues and EBIT



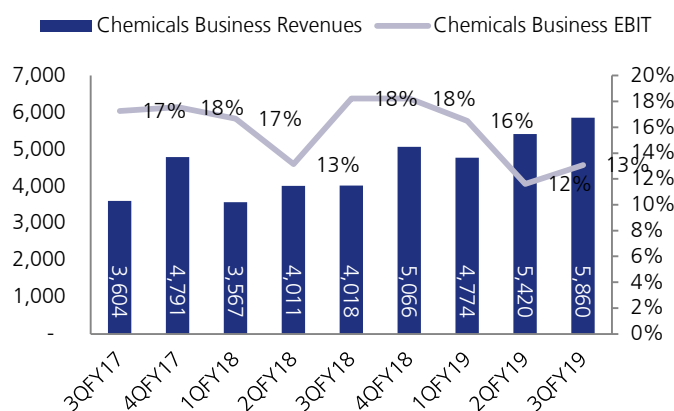
Source: Company, JM Financial

Exhibit 49. TTB RoCE's



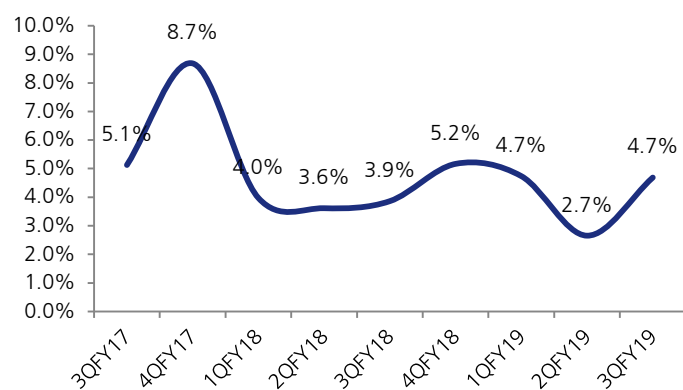
Source: Company, JM Financial

Exhibit 50. CB revenues and EBIT



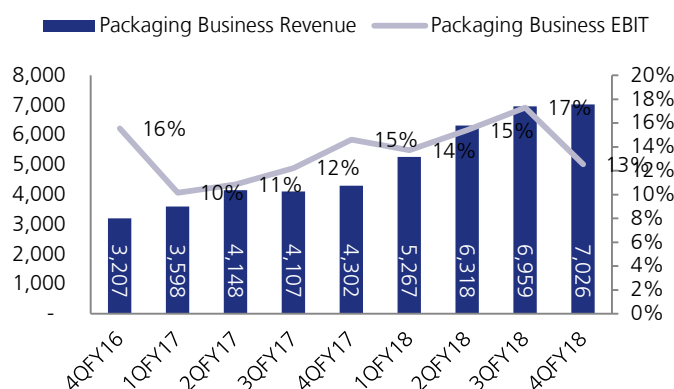
Source: Company, JM Financial

Exhibit 51. CB RoCE's



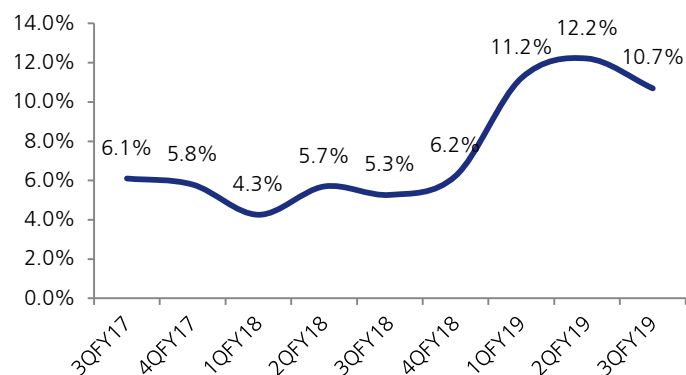
Source: Company, JM Financial

Exhibit 52. PFB revenues and EBIT



Source: Company, JM Financial

Exhibit 53. PFB RoCE's



Source: Company, JM Financial

Exhibit 54. Valuation of SRF

Particular		Multiple	EV
Technical Textile Business	3,198	6.0	19,188
Specialty Chemicals	7,568	12.0	90,821
Packaging Films Business	2,345	7.0	16,413
HFC-134a	4,906	10.0	49,061
Others	-2,840	6.0	-17,038
Total Business EBITDA	15,177		1,58,444
Less			
Gross Debt			31,418
Cash & Cash Equivalents			2,184
Equity Value			1,29,210
Share o/s			57
SRF price (Rs /share)			2,250

Source: Company, JM Financial

Company Background

SRF is a multi-business entity with manufacturing tyre cord fabrics to developing advanced fluorine based intermediates (specialty chemicals). It also manufactures packaging films and, fabrics and engineering plastics. It is a multiproduct, multi-locational (including 2 manufacturing plants outside India in South Africa and Thailand) entity with exports to around 75 countries.

Investment thesis:

- **De-risked business profile:** With 4 major business segments, SRF has kept the growth high even if one or two businesses remain stagnant for a quarter or two. Expanding geographies make it viable for SRF to supply to customers in case of macroeconomic hindrances in some part of the globe.
- **Specialty chemicals business continues to be growing story:** SRF is large domestic player in fluoro-specialty chemicals and these products have found widespread applications in agrochemicals and pharmaceutical industry. SRF continues to expand capacities to cater to the growing demand from customers.
- **Growing packaging films business:** SRF is sole suppliers to many global companies. SRF is focusing on increasing R&D and capabilities to add value-added products in the portfolio.

Key risks:

- **Currency Volatility:** SRF has 2 plants outside India and export to c.75 countries. Therefore, adverse currency movements can have a significant impact on company's profitability.
- **Fluorspar price fluctuations:** Major fluctuations in fluorspar prices globally will have a corresponding impact on the margins and profitability of the Company.
- **Slowdown in agrochemicals industry:** The demand for the specialty chemicals business is mainly driven by agro industry while pharmaceutical is the other contributor.

Financial Tables (Consolidated)

Income Statement					(INR mn)
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Net Sales	47,394	55,108	74,956	85,263	96,464
Sales Growth	4.8%	16.3%	36.0%	13.8%	13.1%
Other Operating Income	824	782	1,142	1,256	1,382
Total Revenue	48,218	55,890	76,097	86,519	97,846
Cost of Goods Sold/Op. Exp	23,892	30,157	39,478	42,489	42,797
Personnel Cost	4,338	4,740	5,072	5,427	5,807
Other Expenses	10,294	11,931	18,150	22,877	31,720
EBITDA	9,694	9,062	13,397	15,726	17,522
EBITDA Margin	20.1%	16.2%	17.6%	18.2%	17.9%
EBITDA Growth	-0.4%	-6.5%	47.8%	17.4%	11.4%
Depn. & Amort.	2,834	3,158	3,511	3,729	3,916
EBIT	6,860	5,904	9,886	11,997	13,607
Other Income	730	1,151	350	442	407
Finance Cost	1,018	1,239	2,129	1,779	1,289
PBT before Excep. & Forex	6,572	5,817	8,106	10,659	12,724
Excep. & Forex Inc./Loss(-)	0	0	0	0	0
PBT	6,572	5,817	8,106	10,659	12,724
Taxes	1,422	1,200	2,026	2,665	3,181
Extraordinary Inc./Loss(-)	0	0	0	0	0
Assoc. Profit/Min. Int.(-)	0	0	0	0	0
Reported Net Profit	5,150	4,617	6,079	7,994	9,543
Adjusted Net Profit	5,150	4,617	6,079	7,994	9,543
Net Margin	10.7%	8.3%	8.0%	9.2%	9.8%
Diluted Share Cap. (mn)	57.4	57.4	57.4	57.4	57.4
Diluted EPS (INR)	89.7	80.4	105.9	139.2	166.2
Diluted EPS Growth	19.8%	-10.3%	31.7%	31.5%	19.4%
Total Dividend + Tax	829	829	878	1,155	1,378
Dividend Per Share (INR)	11.8	11.8	12.5	16.4	19.6

Source: Company, JM Financial

Cash Flow Statement					(INR mn)
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Profit before Tax	6,572	5,817	8,106	10,659	12,724
Depn. & Amort.	2,671	2,982	3,511	3,729	3,916
Net Interest Exp. / Inc. (-)	-730	-1,151	-350	-442	-407
Inc (-) / Dec in WCap.	-1,609	-1,914	-2,851	-1,677	-1,376
Others	0	0	0	0	0
Taxes Paid	-1,422	-1,200	-2,026	-2,665	-3,181
Operating Cash Flow	5,481	4,534	6,390	9,605	11,676
Capex	-5,730	-9,838	-8,000	-4,112	-3,518
Free Cash Flow	-248	-5,304	-1,610	5,492	8,158
Inc (-) / Dec in Investments	-1,276	-3,322	3,715	0	0
Others	7	823	0	0	0
Investing Cash Flow	-6,999	-12,337	-4,285	-4,112	-3,518
Inc / Dec (-) in Capital	-124	31	0	0	0
Dividend + Tax thereon	-829	-829	-878	-1,155	-1,378
Inc / Dec (-) in Loans	-1,190	7,456	-1,000	-5,000	-7,000
Others	730	1,151	350	442	407
Financing Cash Flow	-1,413	7,809	-1,529	-5,713	-7,972
Inc / Dec (-) in Cash	-2,931	6	577	-221	186
Opening Cash Balance	3,892	961	967	1,545	1,324
Closing Cash Balance	961	967	1,544	1,324	1,510

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Shareholders' Fund	31,827	35,645	40,847	47,686	55,851
Share Capital	584	584	584	584	584
Reserves & Surplus	31,242	35,061	40,262	47,102	55,266
Preference Share Capital	0	0	0	0	0
Minority Interest	0	0	0	0	0
Total Loans	23,962	31,418	30,418	25,418	18,418
Def. Tax Liab. / Assets (-)	2,840	2,914	2,914	2,914	2,914
Total - Equity & Liab.	58,629	69,978	74,179	76,018	77,183
Net Fixed Assets	46,635	56,804	57,577	57,961	57,563
Gross Fixed Assets	48,410	58,248	66,248	70,360	73,878
Intangible Assets	49	41	41	41	41
Less: Depn. & Amort.	5,218	8,200	11,711	15,440	19,356
Capital WIP	3,393	6,715	3,000	3,000	3,000
Investments	1,959	1,218	1,218	1,218	1,218
Current Assets	21,090	25,608	32,797	35,740	39,363
Inventories	8,381	9,582	12,732	14,483	16,386
Sundry Debtors	6,569	6,807	10,268	11,680	13,214
Cash & Bank Balances	961	967	1,545	1,324	1,510
Loans & Advances	143	151	151	151	151
Other Current Assets	5,036	8,101	8,101	8,101	8,101
Current Liab. & Prov.	11,055	13,653	17,414	18,900	20,961
Current Liabilities	8,389	10,785	14,546	16,032	18,093
Provisions & Others	2,666	2,868	2,868	2,868	2,868
Net Current Assets	10,035	11,955	15,383	16,840	18,402
Total - Assets	58,628	69,977	74,179	76,018	77,183

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Net Margin	10.7%	8.3%	8.0%	9.2%	9.8%
Asset Turnover (x)	0.8	0.9	1.0	1.1	1.3
Leverage Factor (x)	2.0	1.9	1.9	1.7	1.5
RoE	17.3%	13.7%	15.9%	18.1%	18.4%

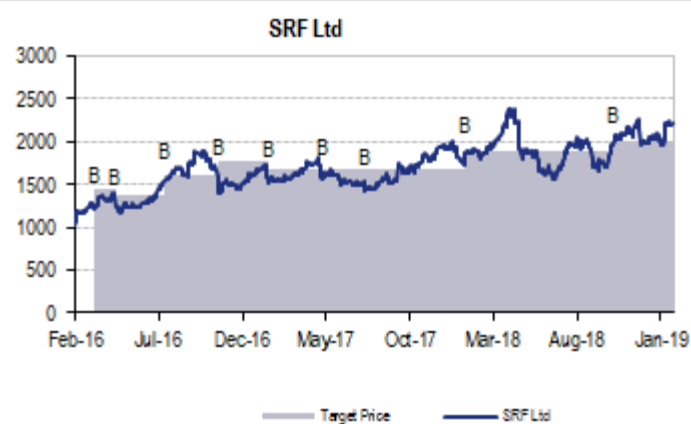
Key Ratios					
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
BV/Share (INR)	544.6	609.9	698.9	816.0	955.7
ROIC	10.7%	8.0%	11.1%	12.9%	14.4%
ROE	17.3%	13.7%	15.9%	18.1%	18.4%
Net Debt/Equity (x)	0.7	0.8	0.7	0.5	0.3
P/E (x)	25.1	28.0	21.3	16.2	13.6
P/B (x)	4.1	3.7	3.2	2.8	2.4
EV/EBITDA (x)	15.4	17.4	11.7	9.6	8.2
EV/Sales (x)	3.1	2.8	2.1	1.7	1.5
Debtor days	50	44	49	49	49
Inventory days	63	63	61	61	61
Creditor days	77	81	83	81	81

Source: Company, JM Financial

History of Earnings Estimate and Target Price

Date	Recommendation	Target Price	% Chg.
4-Apr-16	Buy	1,450	
13-May-16	Buy	1,380	-4.8
10-Aug-16	Buy	1,600	15.9
15-Nov-16	Buy	1,760	10.0
14-Feb-17	Buy	1,680	-4.5
24-May-17	Buy	1,680	0.0
10-Aug-17	Buy	1,670	-0.6
8-Feb-18	Buy	1,885	12.9
4-Nov-18	Buy	2,000	6.1

Recommendation History



PI Industries | HOLD

Focus on R&D and exports providing growth momentum

PI Industries (PI) is an agri-based chemistry solution provider. It currently operates 3 formulation facilities as well as 8 multi-product plants at 3 manufacturing locations. It has successfully leveraged its capabilities across the agri-sciences value chain by providing integrated and innovative solutions to its customers through strategic partnerships. It has strong research and development team, state-of-the-art manufacturing services, a strong brand building team, robust distribution presence in India. We expect the agrochemicals industry to grow at 8%-9% domestically over the medium term, as stated in our previous report. PI operates in more than 30 countries across 6 continents and in FY18 had earned c. 63% of its total revenue from outside India market. PI reported 3QFY19 revenue at INR 7.08bn (+32% YoY / -2% QoQ) beating JMFe by 14%. EBITDA was reported at INR 1.49bn (+42% YoY / +10% QoQ) beating JMFe by 20%. PAT was reported at INR 1.07bn (+33% YoY / +14% QoQ) beating JMFe by 15%. While the export seems to push the revenues but we wait for sustainability in CSM business. We maintain HOLD with TP of INR 800.

- **Strong volume growth in exports drives Revenue growth:** (i) Revenue growth was driven by ~40% YoY growth in exports. In the conference call, management was confident that exports should continue to grow at c.20%. During the conference call, management has also indicated a double-digit growth for domestic revenue based on branded portfolio and new launches. (ii) EBITDA margin for the quarter was reported at 21% (+152bps YoY / +239bps QoQ) against JMFe of 20%. (iii) Tax rate for the quarter was at 22.8% as against JMFe of 18%. (iii) Net Debt to Equity ratio for the company stands close to zero.
- **Other Key takeaways from conference call:** (i) PI has indicated a capex of INR 3 to 3.5bn each for FY20 and FY21, which is proposed to be funded through internal accruals. (ii) The company has recently commissioned a new multi-product plant in Jambusar and the other multi-product plant is expected to get commissioned in the next quarter. (iii) Separately, the company has also initiated construction of 2 new multi-product plants which are expected to be commissioned by 1Q'FY20. (iv) Management has stated that the current order book for CSM is at close to USD 1.3bn. (v) Management also maintained guidance for EBITDA Margin at c.21% and indicated that the current Gross Margins are sustainable. (vi) We expect the exposure of raw materials procurement have been diversified with new emerging sources like India and other Asian countries.
- **Maintain HOLD with TP of INR 800:** We believe that while the last two quarters have been good for the exports / CSM segment after a series of quarterly misses. Company is hopeful of strong order book performance while we remain cautious and would wait for some clarity on sustainability of the CSM / export business. We value the stock at PE of 19x on EPS of FY21 to arrive at TP of INR 800. Key risks to the earnings: 1) Fluctuating raw material prices. 2) Delay in revival of global innovator agro-chemical companies.

Financial Summary					(INR mn)
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Net Sales	22,765	22,771	27,705	32,559	38,274
Sales Growth (%)	8.6	0.0	21.7	17.5	17.6
EBITDA	5,505	4,921	5,738	6,937	8,197
EBITDA Margin (%)	24.2	21.6	20.7	21.3	21.4
Adjusted Net Profit	4,424	3,480	4,000	4,901	5,814
Diluted EPS (INR)	32.0	25.2	29.0	35.5	42.1
Diluted EPS Growth (%)	47.6	-21.2	14.9	22.5	18.6
ROIC (%)	31.5	19.7	20.8	22.3	22.7
ROE (%)	32.0	19.8	19.3	20.1	20.2
P/E (x)	28.5	36.2	31.5	25.7	21.7
P/B (x)	7.8	6.6	5.6	4.8	4.0
EV/EBITDA (x)	22.6	25.2	21.5	17.7	14.7
Dividend Yield (%)	0.2	0.4	0.5	0.6	0.7

Source: Company data, JM Financial. Note: Valuations as of 27/Feb/2019



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Recommendation and Price Target

Current Reco.	HOLD
Previous Reco.	HOLD
Current Price Target (12M)	800
Upside/(Downside)	-12.3%
Previous Price Target	775
Change	3.2%

Key Data – PI IN

Current Market Price	INR912
Market cap (bn)	INR125.9/US\$1.8
Free Float	42%
Shares in issue (mn)	137.3
Diluted share (mn)	138.1
3-mon avg daily val (mn)	INR88.4/US\$1.2
52-week range	933/676
Sensex/Nifty	35,905/10,807
INR/US\$	71.2

Price Performance

%	1M	6M	12M
Absolute	7.2	18.5	3.0
Relative*	7.5	27.7	-1.5

* To the BSE Sensex

JM Financial Research is also available on:
Bloomberg - JMFR <GO>,
Thomson Publisher & Reuters
S&P Capital IQ and FactSet

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

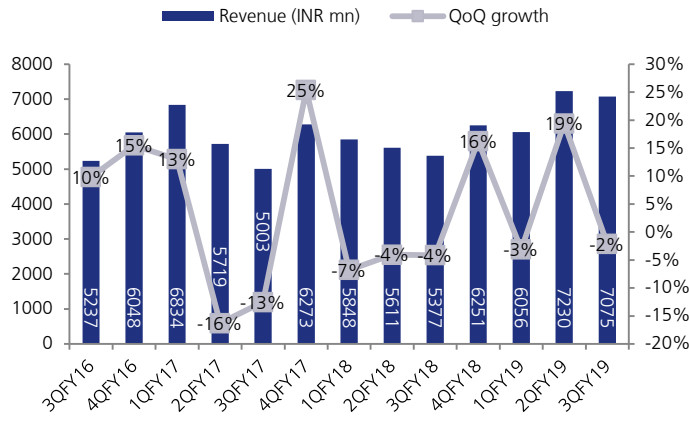
3QFY19 result

Exhibit 55. Financial highlights

(Rs mn)	Q3FY19 AS	Q3FY19 E	% vs JMFe	Q2FY19 AS	%QoQ	Q3FY18 AS	%YoY
Net revenue from operations	7,075	6,184	14%	7,230	-2%	5,377	32%
Expenses							
COGS	3,775	3,216	17%	4,125	-8%	2,821	34%
Employee Benefit expenses	637	680	-6%	683	-7%	513	24%
Other Expenses	1,177	1,051	12%	1,076	9%	996	18%
Total Expenses	5,589	4,947	13%	5,884	-5%	4,330	29%
EBIDTA	1,486	1,237	20%	1,346	10%	1,048	42%
As a % of sales	21.0%	20%	100bps	19%	239bps	19%	152bps
Other Income	152	118	28%	124	23%	161	-6%
Depreciation and Amortization Expenses	234	215	9%	228	3%	211	11%
EBIT	1,404	1,141	23%	1,242	13%	997	41%
Finance Costs	15	6	100%	14	7%	14	6%
PBT	1,389	1,135	22%	1,228	13%	983	41%
Tax expense	316	204	55%	284	11%	177	79%
Tax rate %	22.8%	18%	475bps	23%	-38bps	18%	479bps
PAT	1,073	930	15%	944	14%	806	33%
OCI	348	-	NA	-202	NA	106	NA
PAT after OCI	1,421	930	53%	742	92%	912	56%
EPS	7.77	6.75	15%	6.85	13%	5.86	33%

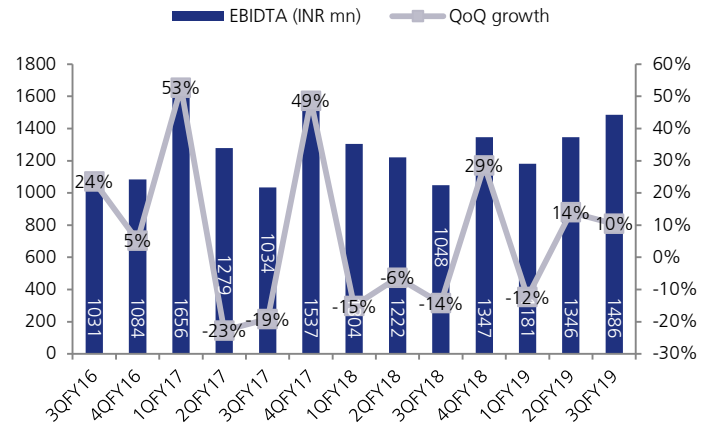
Source: Company, JM Financial

Exhibit 56. Revenue growth



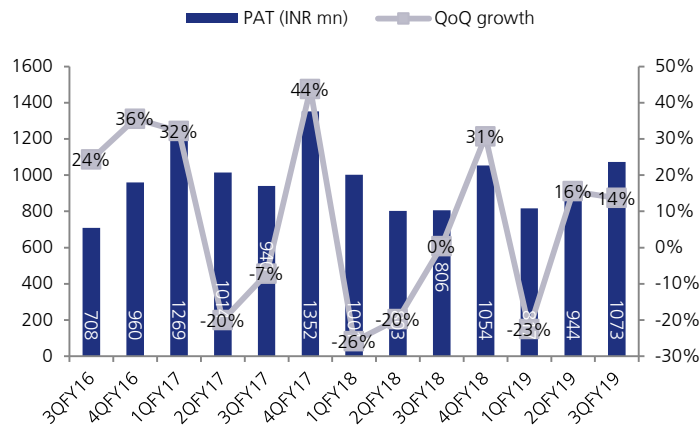
Source: Company, JM Financial

Exhibit 57. EBITDA growth



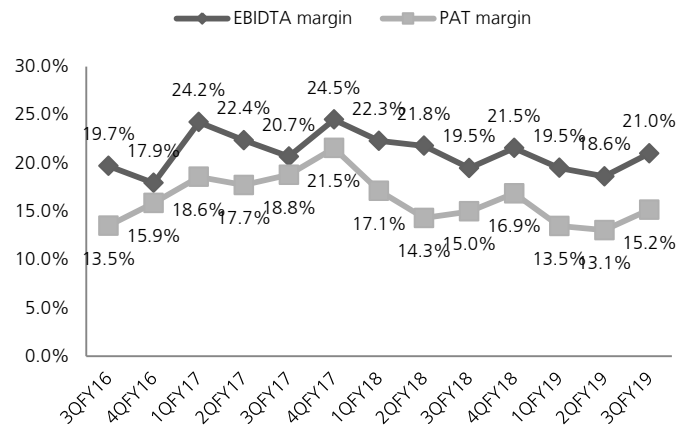
Source: Company, JM Financial

Exhibit 58. PAT growth



Source: Company, JM Financial

Exhibit 59. EBITDA and PAT margins



Source: Company, JM Financial

Exhibit 60. Valuation of PI

FY21 EPS	42.10
Mutiple	19
TP	800

Source: Company, JM Financial

Investment thesis

- **Land productivity has to increase to offset stagnant land availability:** World population is expected to reach 8.5bn by 2030 from 7.6bn in 2018, an increase of about 12%, while the cultivable land will either decrease (due to urban expansion) or remain same. New chemistries are the only aid to the surging demand for food.
- **Technical expertise:** SRF has always given preference to R&D through its Udaipur facility that focuses on process improvement, cost optimisation, and effluent management etc. Further the distribution team is a technical marketing team that understands the chemistry.
- **Strong long term relationship:** 60 years of brand building and strong relationship with the channel partners helps PI to enjoy loyalty of both customers as well as distributors since decades.

Key risks

- **Agriculture is seasonal and cyclic in nature:** The industry is subject to the vagaries of nature with un-favourable weather/climate conditions, poor rainfall, seasonal fluctuations that can adversely affect the company.
- **Threat from global innovators:** If any global innovator, from whom in-licensing is done, enters the Indian market, opportunity will be lost.
- **Alternatives to current technology:** Agri input activities could be adversely affected by introduction of alternative pest management and crop protection measures such as bio technology products, pest resistant seeds or genetically modified crops.

Financial Tables (Standalone)

Income Statement					(INR mn)
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Net Sales	22,765	22,771	27,705	32,559	38,274
Sales Growth	8.6%	0.0%	21.7%	17.5%	17.6%
Other Operating Income	0	0	0	0	0
Total Revenue	22,765	22,771	27,705	32,559	38,274
Cost of Goods Sold/Op. Exp	11,631	11,690	14,822	17,256	20,285
Personnel Cost	2,204	2,400	2,712	3,254	3,840
Other Expenses	3,425	3,760	4,433	5,112	5,952
EBITDA	5,505	4,921	5,738	6,937	8,197
EBITDA Margin	24.2%	21.6%	20.7%	21.3%	21.4%
EBITDA Growth	28.2%	-10.6%	16.6%	20.9%	18.2%
Depn. & Amort.	727	826	909	1,099	1,316
EBIT	4,779	4,095	4,830	5,838	6,882
Other Income	0	0	0	0	0
Finance Cost	72	59	63	26	0
PBT before Excep. & Forex	4,707	4,036	4,766	5,812	6,882
Excep. & Forex Inc./Loss(-)	0	0	0	0	0
PBT	4,707	4,036	4,766	5,812	6,882
Taxes	491	971	1,168	1,383	1,640
Extraordinary Inc./Loss(-)	0	0	0	0	0
Assoc. Profit/Min. Int.(-)	0	0	0	0	0
Reported Net Profit	4,215	3,066	3,598	4,429	5,241
Adjusted Net Profit	4,424	3,480	4,000	4,901	5,814
Net Margin	19.4%	15.3%	14.4%	15.1%	15.2%
Diluted Share Cap. (mn)	138.3	138.1	138.1	138.1	138.1
Diluted EPS (INR)	32.0	25.2	29.0	35.5	42.1
Diluted EPS Growth	47.6%	-21.2%	14.9%	22.5%	18.6%
Total Dividend + Tax	248	662	725	889	1,054
Dividend Per Share (INR)	1.5	4.0	4.4	5.3	6.3

Source: Company, JM Financial

Cash Flow Statement					(INR mn)
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Profit before Tax	4,707	4,036	4,766	5,812	6,882
Depn. & Amort.	707	804	909	1,099	1,316
Net Interest Exp. / Inc. (-)	-286	-541	-339	-447	-573
Inc (-) / Dec in WCcap.	-1,205	-1,177	640	-887	-1,037
Others	0	0	0	0	0
Taxes Paid	-1,045	-1,043	-1,266	-1,502	-1,782
Operating Cash Flow	2,878	2,079	4,710	4,076	4,806
Capex	-1,478	-1,459	-3,031	-3,286	-3,286
Free Cash Flow	1,400	620	1,679	790	1,520
Inc (-) / Dec in Investments	-824	-771	-766	0	0
Others	358	600	402	472	573
Investing Cash Flow	-1,944	-1,630	-3,395	-2,813	-2,713
Inc / Dec (-) in Capital	0	0	0	0	0
Dividend + Tax thereon	-248	-662	-725	-889	-1,054
Inc / Dec (-) in Loans	-487	-425	-206	-346	0
Others	0	0	0	0	0
Financing Cash Flow	-735	-1,087	-932	-1,234	-1,054
Inc / Dec (-) in Cash	199	-638	384	28	1,039
Opening Cash Balance	438	1,212	1,204	1,990	2,490
Closing Cash Balance	638	574	1,588	2,018	3,529

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Shareholders' Fund	16,089	19,122	22,397	26,409	31,169
Share Capital	138	138	138	138	138
Reserves & Surplus	15,951	18,984	22,259	26,272	31,031
Preference Share Capital	0	0	0	0	0
Minority Interest	0	0	0	0	0
Total Loans	830	463	320	0	0
Def. Tax Liab. / Assets (-)	-179	-252	-350	-469	-610
Total - Equity & Liab.	16,739	19,334	22,368	25,941	30,560
Net Fixed Assets	10,201	10,856	12,979	15,165	17,135
Gross Fixed Assets	10,584	11,920	14,420	17,445	20,695
Intangible Assets	264	279	310	346	381
Less: Depn. & Amort.	1,230	2,033	2,942	4,041	5,357
Capital WIP	583	691	1,191	1,416	1,416
Investments	1,414	2,240	2,778	2,848	2,949
Current Assets	11,037	12,802	13,934	16,445	20,488
Inventories	4,319	4,520	5,383	6,244	7,340
Sundry Debtors	4,237	5,268	4,934	5,798	6,816
Cash & Bank Balances	638	574	1,588	2,018	3,529
Loans & Advances	539	384	1,112	1,306	1,536
Other Current Assets	1,304	2,057	918	1,078	1,268
Current Liab. & Prov.	5,912	6,565	7,323	8,517	10,012
Current Liabilities	2,881	3,703	4,319	5,023	5,905
Provisions & Others	3,032	2,861	3,004	3,494	4,107
Net Current Assets	5,124	6,238	6,611	7,928	10,476
Total - Assets	16,739	19,334	22,368	25,941	30,560

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
Net Margin	19.4%	15.3%	14.4%	15.1%	15.2%
Asset Turnover (x)	1.5	1.2	1.3	1.3	1.3
Leverage Factor (x)	1.1	1.0	1.0	1.0	1.0
RoE	32.0%	19.8%	19.3%	20.1%	20.2%

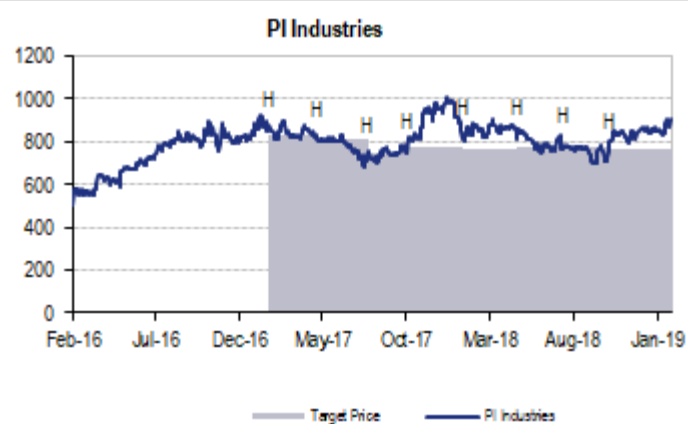
Key Ratios					
Y/E March	FY17A	FY18A	FY19E	FY20E	FY21E
BV/Share (INR)	117.2	138.9	162.2	191.3	225.7
ROIC	31.5%	19.7%	20.8%	22.3%	22.7%
ROE	32.0%	19.8%	19.3%	20.1%	20.2%
Net Debt/Equity (x)	0.0	0.0	-0.1	-0.1	-0.1
P/E (x)	28.5	36.2	31.5	25.7	21.7
P/B (x)	7.8	6.6	5.6	4.8	4.0
EV/EBITDA (x)	22.6	25.2	21.5	17.7	14.7
EV/Sales (x)	5.5	5.5	4.4	3.8	3.2
Debtor days	68	84	65	65	65
Inventory days	69	72	71	70	70
Creditor days	61	76	72	72	72

Source: Company, JM Financial

History of Earnings Estimate and Target Price

Date	Recommendation	Target Price	% Chg.
17-Feb-17	Hold	830	
18-May-17	Hold	810	-2.4
16-Aug-17	Hold	750	-7.4
27-Oct-17	Hold	775	3.3
6-Feb-18	Hold	760	-1.9
17-May-18	Hold	775	2.0
9-Aug-18	Hold	775	0.0
30-Oct-18	Hold	765	-1.3

Recommendation History



Aarti Industries | Not Rated

Global contracts and R&D to keep the margins high

Aarti Industries (Aarti) is a leading manufacturer of Specialty and Pharmaceuticals chemicals with expertise in benzene-based products. It is one of the most unique global entities that is both forward and backward-integrated in its range of chemicals and across various value chains. Around 45% of the revenue comes through exports. The company has more than 200 products and 17 manufacturing units in India. Aarti serves 700 domestic and 300 export customers spread across 60 countries. Company's global market share in various products range is between 25%-40%. Aarti is present in the value-chain that makes it easy for them to pass on any raw material price increase. Aarti is REACH-compliant (Euro standards), giving surety over quality and process. Management is well aware of the need for innovation and plans to invest INR 750mn for their fourth R&D and scale-up facility for product development. We do not have a rating on the stock.

- **Expansive presence across various chemistries:** Globally, Aarti is 2nd largest in ammonolysis, 2nd largest in hydrogenation, 3rd largest player in chlorination, 4th largest in nitration, and only player in India for fluoro compounding. The company boasts a product portfolio comprising of 75% of the specialty chemical products taking top 4 positions in their respective categories.
- **De-risked portfolio driving continuous growth:** Aarti serves customers from various industries like Agrochemicals, Pharmaceuticals, FMCG, Dyes, Pigments, Cattle Feed, Flavours and Fragrances, Food Ingredients, Oil & Gas, Optical Brighteners, Polymers and Additives, Printing Inks, Rubber Chemicals etc. Agrochemical has c. 25-30% share of specialty chemical sales, Polymer, Pigments and Dyes contribute c. 15-20% each to the sales. Top 10 customers make 27% of the bottom-line.
- **Next chain of growth drivers already on the way:** Aarti is going beyond benzene chemistry and started operations of Nitrotoluene facility at Jhagadia which reached utilisation of 40% by the end of FY18. Peak utilisation is expected to reach by FY22 and estimated revenue visibility is of c. INR 3.5bn-4bn per annum. Aarti plans to introduce toluene and ethylene-based chemicals for end-use applications of agrochemicals, engineering polymers, pigments, and additives. The company has 12 new API's under development and has witnessed 60% exports from US and EU with 4 commercial products in US and other awaiting approval. Further, Aarti has invested in Contract Research and Manufacturing Services (CRAMS) for clients with focused R&D team for it.
- **Revenue assurance with long-term contracts:** Aarti reported revenue/ EBITDA/ PAT of INR 37bn/ 6.6bn/ 3.2bn in FY18. It has entered into a 10-year contract valued at INR 40bn with a global agriculture company to provide high-value intermediates for manufacturing herbicides. Aarti got into a 20-year contract worth INR 100bn to supply high-value specialty chemical intermediates. Aarti has received basic technology for the plant and is investing c. USD 35-40mn for the project, Aarti has received an advance of USD 42mn for the same. Key risks to business: 1) Downside in developed markets.

Financial Summary	(INR mn)				
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net Sales	26,328	28,706	29,336	30,502	36,993
Sales Growth (%)	25.6	9.0	2.2	4.0	21.3
EBITDA	3,955	4,565	5,302	6,084	6,567
EBITDA Margin (%)	15.0	15.9	18.1	19.9	17.8
Adjusted Net Profit	1,487	1,843	2,524	3,067	3,165
Diluted EPS (INR)	16.8	20.8	30.3	37.3	38.9
Diluted EPS Growth (%)	1.1	24.0	45.6	23.3	4.2
ROIC (%)	14.6	16.1	16.1	16.4	14.1
ROE (%)	20.4	21.2	24.6	25.5	22.4
P/E (x)	82.7	66.7	45.8	37.2	35.7
P/B (x)	15.8	12.8	10.6	8.7	7.4
EV/EBITDA (x)	30.8	26.9	23.5	20.8	20.0
Dividend Yield (%)	0.3	0.4	0.6	0.0	0.1

Source: Company data, JM Financial. Note: Valuations as of 27/Feb/2019



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Key Data – ARTO IN

Current Market Price	INR1390
Market cap (bn)	INR113.0/\$1.6
Free Float	45.6%
Shares in issue (mn)	81.3
Diluted share (mn)	81.3
3-mon avg daily val (mn)	INR129.9/US\$1.8
52-week range	1808/1041
Sensex/Nifty	35,867/10,793
INR/US\$	70.7

Price Performance

%	1M	6M	12M
Absolute	-14.5	1.1	18.5
Relative*	-13.4	8.3	13.6

* To the BSE Sensex

JM Financial Research is also available on:
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Thomson Publisher & Reuters
S&P Capital IQ and FactSet

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

Financial Tables (Standalone)

Income Statement					(INR mn)
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net Sales	26,328	28,706	29,336	30,502	36,993
Sales Growth	25.6%	9.0%	2.2%	4.0%	21.3%
Other Operating Income	0	0	0	0	0
Total Revenue	26,328	28,706	29,336	30,502	36,993
Cost of Goods Sold/Op. Exp	16,856	17,954	17,553	17,002	21,490
Personnel Cost	757	897	1,104	1,402	1,768
Other Expenses	4,760	5,291	5,377	6,015	7,168
EBITDA	3,955	4,565	5,302	6,084	6,567
EBITDA Margin	15.0%	15.9%	18.1%	19.9%	17.8%
EBITDA Growth	11.0%	15.4%	16.2%	14.8%	7.9%
Depn. & Amort.	874	786	927	1,148	1,358
EBIT	3,081	3,778	4,375	4,936	5,210
Other Income	104	20	96	25	21
Finance Cost	1,175	1,375	1,159	1,174	1,307
PBT before Excep. & Forex	2,009	2,423	3,313	3,787	3,924
Excep. & Forex Inc./Loss(-)	0	0	0	0	0
PBT	2,009	2,423	3,313	3,787	3,924
Taxes	523	580	788	721	759
Extraordinary Inc./Loss(-)	0	0	0	0	0
Assoc. Profit/Min. Int.(-)	0	0	0	0	0
Reported Net Profit	1,487	1,843	2,524	3,067	3,165
Adjusted Net Profit	1,487	1,843	2,524	3,067	3,165
Net Margin	5.6%	6.4%	8.6%	10.1%	8.6%
Diluted Share Cap. (mn)	88.6	88.6	83.3	82.1	81.3
Diluted EPS (INR)	16.8	20.8	30.3	37.3	38.9
Diluted EPS Growth	1.1%	24.0%	45.6%	23.3%	4.2%
Total Dividend + Tax	466	585	840	0	99
Dividend Per Share (INR)	4.5	5.5	8.5	0.0	1.0

Source: Company, JM Financial

Cash Flow Statement					(INR mn)
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Profit before Tax	2,009	2,423	3,313	3,787	3,924
Depn. & Amort.	866	640	926	1,145	1,351
Net Interest Exp. / Inc. (-)	1,071	1,355	1,063	1,149	1,286
Inc (-) / Dec in WCap.	-452	883	534	-167	-1,831
Others	0	0	0	0	0
Taxes Paid	-523	-580	-788	-721	-759
Operating Cash Flow	2,972	4,721	5,046	5,193	3,971
Capex	-2,662	-2,822	-4,450	-4,714	-5,772
Free Cash Flow	309	1,900	596	480	-1,801
Inc (-) / Dec in Investments	-137	-647	409	-57	58
Others	0	-984	-284	-405	-498
Investing Cash Flow	-2,799	-4,452	-4,324	-5,176	-6,212
Inc / Dec (-) in Capital	0	0	-26	-6	-4
Dividend + Tax thereon	-466	-585	-840	0	-99
Inc / Dec (-) in Loans	1,391	1,254	1,508	2,009	4,663
Others	-1,071	-798	-1,386	-2,046	-2,297
Financing Cash Flow	-146	-130	-744	-43	2,263
Inc / Dec (-) in Cash	26	140	-22	-25	23
Opening Cash Balance	97	124	263	242	216
Closing Cash Balance	124	263	242	216	239

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Shareholders' Fund	7,787	9,602	10,937	13,101	15,152
Share Capital	443	443	417	411	407
Reserves & Surplus	7,344	9,159	10,520	12,690	14,745
Preference Share Capital	0	0	0	0	0
Minority Interest	0	0	0	0	0
Total Loans	9,409	10,662	12,170	14,179	18,843
Def. Tax Liab. / Assets (-)	845	1,025	1,195	1,420	1,594
Total - Equity & Liab.	18,040	21,289	24,302	28,700	35,588
Net Fixed Assets	9,059	11,240	14,765	18,334	22,755
Gross Fixed Assets	13,939	16,007	19,269	24,362	28,491
Intangible Assets	362	362	362	382	382
Less: Depn. & Amort.	6,368	7,009	7,934	9,079	10,430
Capital WIP	1,126	1,880	3,068	2,668	4,312
Investments	322	969	560	617	559
Current Assets	16,267	13,314	13,039	14,458	17,861
Inventories	6,033	5,439	4,742	5,466	6,868
Sundry Debtors	4,658	4,668	5,228	5,474	6,392
Cash & Bank Balances	124	263	242	216	239
Loans & Advances	5,158	1,688	1,379	1,425	1,948
Other Current Assets	295	1,256	1,448	1,878	2,415
Current Liab. & Prov.	7,608	4,235	4,062	4,709	5,587
Current Liabilities	6,308	2,528	2,991	2,949	3,466
Provisions & Others	1,300	1,707	1,071	1,760	2,121
Net Current Assets	8,659	9,079	8,977	9,749	12,274
Total - Assets	18,040	21,289	24,302	28,700	35,588

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net Margin	5.6%	6.4%	8.6%	10.1%	8.6%
Asset Turnover (x)	1.4	1.4	1.3	1.2	1.2
Leverage Factor (x)	2.6	2.4	2.2	2.2	2.3
RoE	20.4%	21.2%	24.6%	25.5%	22.4%

Key Ratios					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
BV/Share (INR)	87.9	108.4	131.3	159.5	186.4
ROIC	14.6%	16.1%	16.1%	16.4%	14.1%
ROE	20.4%	21.2%	24.6%	25.5%	22.4%
Net Debt/Equity (x)	1.2	1.1	1.1	1.1	1.2
P/E (x)	82.7	66.7	45.8	37.2	35.7
P/B (x)	15.8	12.8	10.6	8.7	7.4
EV/EBITDA (x)	30.8	26.9	23.5	20.8	20.0
EV/Sales (x)	4.6	4.3	4.2	4.1	3.5
Debtor days	65	59	65	66	63
Inventory days	84	69	59	65	68
Creditor days	60	38	45	44	42

Source: Company, JM Financial

Deepak Fertilisers | Not Rated

Everything in place - demand, R&D, and capacity expansion

Deepak fertilisers (DFPCL) is among leading producers of fertilisers and industrial chemicals in India. Industrial chemicals business is the major segment that contributed 51.31% to total revenue in FY18. While crop nutrition business contributed 29.81%, the technical ammonium nitrate contributed 18.48% to the total revenue in FY18. DFPCL has 5 plants that are in close proximity to sourcing channels, ports and gas pipeline to procure raw materials and save logistics cost. DFPCL has grown its trading business to have key partnerships in South East Asia, Middle East Europe and China, providing another source of income. DFPCL expects to keep the leadership position through its plan to grow via the route of capacity expansion of current plants, investing in R&D for increasing customisation of products, improving portfolio mix towards high-margin products and some investments into real estate. We do not have a rating on the stock.

- **Domestic penetration:** DFPCL has strategically placed plants in close proximity to its largest customers in the Indian geography. In crop nutrition business, DFPCL has expanded its market share in Maharashtra to c. 19% with improved market presences in Telangana, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Chhattisgarh and North India. It recently operationalised new Bensulf plant with effective capacity of 32,000 MTPA at Panipat, Haryana. In mining chemicals, DFPCL added new geographies in Raipur, Tata Nagar and NCR.
- **Growth drivers:** DFPCL has initiated on a research establishment – ARTIC that is aimed towards customised product delivery, product innovation, nutrient management, and post-harvest shelf life etc. On products side, Global market insights estimates global market for ammonium nitrate to grow at CAGR of 3% during 2016-2024 on back of increase in demand for fertilisers and explosives. DFPCL can benefit from the growth in Indian market as farmers are focusing towards increasing land yield and increase in coalfield mining is resulting into increase in demand for commercial explosives. Further, demand is expected to rise from cement industry with GOI's "Pradhan mantra Awas Yogn" (housing for all). In mining, DFPCL bagged a USD 60mn mining services contract in Australia for duration of 3 years.
- **Expansion plans:** DFPCL has successfully completed the mechanical completion of Nitric Acid plant and the production trials are in progress. The plant is estimated to produce 1,48,500 MTPA of dilute nitric acid and 92,400 MTPA of concentrated nitric acid. Additionally, more capacity expansion projects are planned for ammonia (5,00,000 MTPA), isopropyl alcohol (1,00,000 MTPA), technical ammonium nitrate (3,76,000 MTPA), and NPK fertiliser (2,00,000 MTPA).
- **Financials:** DFPCL reported revenue/ EBITDA / PAT of INR 60bn/ 5.5bn/ 1.6bn in FY18. DFPCL has all the growth drivers in place- R&D, capacity expansion, and demand. Key risks to the business are: 1) Monsoon depended fertilisers business. 2) Pharma business vulnerable to the USA's policy changes. 3) Raw material price fluctuations.

Financial Summary					(INR mn)
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales	39,146	38,124	43,092	41,501	59,949
Sales growth (%)	-2.6	13.0	-3.7	44.5	
EBITDA	5,167	2,959	3,565	4,734	5,452
EBITDA (%)	13%	8%	8%	11%	9%
Adjusted net profit	2,519	594	1,163	1,543	1,627
EPS (Rs)	27.3	7.7	13.2	17.5	18.4
EPS growth (%)		-71.7	71.0	32.7	5.4
ROE (%)	17.3	4.0	6.0	7.7	7.9
PE (x)	3.8	16.1	10.8	14.3	15.3
Price/Book value (x)	0.6	0.7	0.6	1.1	1.2
EV/EBITDA (x)	2.8	6.4	8.0	7.6	10.0

Source: Company data, JM Financial. Note: Valuations as of 28/Feb/2019



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Key Data – DFPC IN

Current Market Price	INR127
Market cap (bn)	INR11.2/\$0.2
Free Float	47.9%
Shares in issue (mn)	88.20494
Diluted share (mn)	88.20494
3-mon avg daily val (mn)	INR57.5/US\$0.8
52-week range	397/104
Sensex/Nifty	35,867/10,793
INR/US\$	70.7

Price Performance

%	1M	6M	12M
Absolute	8.1	-49.9	-62.8
Relative*	9.2	-42.7	-67.7

* To the BSE Sensex

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Thomson Publisher & Reuters
S&P Capital IQ and FactSet

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Financial Tables (Consolidated)

Income Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales (Net of excise)	39,146	38,124	43,092	41,501	59,949
Growth (%)		-3%	13%	-4%	44%
Raw material (or COGS)	28,180	29,849	33,432	29,432	45,549
Personnel cost	1,689	1,536	1,830	2,102	2,458
Other expenses (or SG&A)	4,110	3,781	4,265	5,234	6,489
EBITDA	5,167	2,959	3,565	4,734	5,452
EBITDA (%)	13%	8%	8%	11%	9%
Growth (%)		-43%	20%	33%	15%
Other non-op. income	469	289	724	159	241
Depreciation and amort.	1,143	1,244	1,218	1,350	1,632
EBIT	4,024	1,714	2,347	3,384	3,820
Less: Finance Costs	1,010	1,111	1,300	1,215	1,732
Pre tax profit	3,483	892	1,755	2,304	2,305
Taxes	964	312	599	758	664
Exceptional items	114	-86	0	0	0
Less: Minority interest	0	-14	-6	3	14
Reported net profit	2,405	680	1,163	1,543	1,627
Adjusted net profit	2,519	594	1,163	1,543	1,627
Margin (%)	6%	2%	3%	4%	3%
Diluted share cap. (mn)	88	88	88	88	88
Diluted EPS (₹)	27.27	7.71	13.18	17.50	18.44
Growth (%)		-72%	71%	33%	5%

Source: Company, JM Financial

Cash Flow Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Reported net profit	2,405	680	1,163	1,543	1,627
Depreciation and amort.	1,143	1,161	-9,538	1,309	1,476
-Inc/dec in working cap.	-753	-3,465	-8,716	7,230	-14,545
Others	1,353	822	570	1,059	1,504
Cash from operations (a)	4,148	-802	-16,521	11,141	-9,938
-Inc/dec in investments	541	0	-51	0	0
Capex	-1,317	-1,292	7,493	-8,270	-5,487
Others	79	289	724	159	241
Cash flow from inv. (b)	-697	-1,003	8,166	-8,111	-5,247
Inc/-dec in capital	0	0	0	0	0
Dividend+Tax thereon	-670	-425	-956	-529	-529
Inc/-dec in loans	-1,924	3,000	7,719	-2,263	17,955
Others	-963	-1,123	3,245	-1,513	-2,219
Financial cash flow (c)	-3,557	1,452	10,008	-4,306	15,207
Inc/-dec in cash (a+b+c)	-106	-353	1,653	-1,277	23
Opening cash balance	1,062	957	604	2,257	980
Closing cash balance	957	604	2,257	980	1,003

Source: Company, JM Financial

Balance Sheet (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Share capital	882	882	882	882	882
Reserves and surplus	13,650	13,839	18,563	19,280	19,580
Networth	14,532	14,721	19,445	20,162	20,462
Total loans	8,237	11,237	18,956	16,692	34,647
Minority interest	1	55	77	79	403
Sources of funds	22,770	26,013	38,478	36,933	55,512
Fixed assets	23,717	24,443	14,507	22,886	25,687
Less: Depn. and amort.	9,443	10,604	1,066	2,374	3,850
Net block	14,274	13,840	13,441	20,511	21,837
Capital WIP	953	1,518	3,962	3,853	6,538
Investments	2,104	2,533	557	1,592	3,929
Def tax assets/- liability	0	0	2,680	1,585	785
Current assets					
Inventories	3,462	4,094	6,059	5,045	7,685
Sundry debtors	7,891	9,535	15,195	13,113	19,654
Cash & bank balances	957	604	2,257	980	1,003
Other current assets	578	836	3,007	3,747	8,439
Loans & advances	1,175	1,442	27	55	45
Current liabilities & prov.					
Current liabilities	7,567	7,566	8,258	13,061	13,823
Provisions and others	1,056	823	449	488	580
Net current assets	5,440	8,122	17,838	9,393	22,424
Others (net)					
Application of funds	22,770	26,013	38,478	36,933	55,512

Source: Company, JM Financial

Key Ratios					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
BV/Share (₹)	164.8	166.9	220.5	228.6	232.0
ROE (%)	17.3	4.0	6.0	7.7	7.9
Net Debt/equity ratio (x)	0.4	0.6	0.8	0.7	1.5
Valuation ratios (x)					
PER	3.8	16.1	10.8	14.3	15.3
PBV	0.6	0.7	0.6	1.1	1.2
EV/EBITDA	2.8	6.4	8.0	7.6	10.0
EV/Sales	0.4	0.5	0.7	0.9	0.9
Turnover ratios (no.)					
Debtor days	74	91	129	115	120
Inventory days	32	39	51	44	47
Creditor days	98	93	90	162	111

Source: Company, JM Financial

GHCL | Not Rated

Promising growth through improving chemicals business

GHCL is an integrated manufacturer of chemicals (Soda Ash and Baking soda), textiles (final products like sheets and duvets) and consumer products. In chemicals, GHCL has Soda ash production capacity of 975 kMTPA (accounting for 25% of domestic demand) and plans to have a phase-wise expansion to cater to increasing demand. The business is backward integrated with lignite mines at Khadsaliya to supply raw material for Soda ash which has helped it to have 30% EBITDA margin for the last 3 years in the business. For Sodium Bicarbonate, GHCL has production capacity of 60 kMTPA used as raw material across various industries like bakery, pharmaceuticals, cleaning agents etc. GHCL has fully integrated textile operations, starting from spinning till finished products exported to developed markets. Expansion plans and new brand building would drive the growth. We do not have a rating on the stock.

- **Phase-wise expansion plans in Chemicals business:** For Soda ash business the production capacity utilisation is c. 95% and hence GHCL is investing to address the growing demand of Soda ash. GHCL expects the completion of brownfield expansion of 1.25 lakh MTPA by March 2019 with estimated investment of c. INR 3bn. While the next phase of capex will come through a planned brownfield expansion of 1.0 lakh MTPA at cost of INR 3bn to be completed over next 2 years. GHCL further is in planning stage to add 5 lakh MTPA soda ash facility to be completed in 4-5 years.
- **New brands in consumer products and textile businesses:** Through its Consumer Products Division, GHCL is expanding its brand reach with i-FLO, under which products like salt, honey, and spices are sold, with salt manufacturing facility at Tamil Nadu. This gives company an added advantage of brand recognition and make a mark in FMCG sector. Further, GHCL has recently come up with REKOOP brand to sell bed sheets, duvet covers, and comforters in US market. This is made using recycled PET bottles to become most eco-friendly polyester fiber.
- **Growth drivers:** Soda ash demand is primarily driven by demand from glass industry (TechSci Research estimates it to grow at CAGR of 13% during 2016-2025) on back of increased construction activities and manufacturing of smartphones, LCDs, laptops etc. Furthermore, soda ash is an important raw material for chemical fertilisers, dyes, coloring agents, recycling aluminum and zinc and hence growing demand from metallurgy and chemicals industry. GHCL is the one of the largest domestic producers and should benefit from this growing demand. GHCL has doubled its Bi-carbonate capacity to 60,000 MTPA in Jan' 2018 which will cater to the growing demand from bakery market. IMARC Group report estimates the Indian bakery market to grow at CAGR of 10% during 2018-2023.
- **Financials:** GHCL reported revenue/ EBITDA/ PAT of INR 29.4bn/ 6.1bn/ 3.6bn in FY18. The company is growing its penetration by brand building and expansion in its businesses. Key risks to the business are: 1) Price correction owing to new capacities across the globe; 2) Increase in natural soda ash production a threat to synthetic soda ash.

Financial Summary					(INR mn)
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales	22,477	23,736	25,307	27,838	29,432
Sales growth (%)		5.6	6.6	10.0	5.7
EBITDA	4,334	5,283	6,159	6,808	6,061
EBITDA (%)	19%	22%	24%	24%	21%
Adjusted net profit	1,395	2,093	2,578	3,831	3,564
EPS (Rs)	10.8	18.2	25.8	38.2	36.6
EPS growth (%)		67.6	41.7	48.3	-4.3
ROE (%)	23.8	27.2	24.9	28.5	22.1
PE (x)	2.8	3.1	4.2	6.7	6.9
Price/Book value (x)	0.5	0.7	1.1	1.9	1.5
EV/EBITDA (x)	4.0	3.5	3.9	5.8	6.2

Source: Company data, JM Financial. Note: Valuations as of 25/Feb/2019



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Key Data – GHCL IN

Current Market Price	INR222
Market cap (bn)	INR21.8/\$0.3
Free Float	61.4%
Shares in issue (mn)	98.02829
Diluted share (mn)	98.02829
3-mon avg daily val (mn)	INR29.1/US\$0.4
52-week range	301/189
Sensex/Nifty	35,867/10,793
INR/US\$	70.7

Price Performance

%	1M	6M	12M
Absolute	-11.2	-13.4	-23.3
Relative*	-10.2	-6.2	-28.2

* To the BSE Sensex

JM Financial Research is also available on:
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Financial Tables (Consolidated)

Income Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales (Net of excise)	22,477	23,736	25,307	27,838	29,432
Growth (%)		6%	7%	10%	6%
Other operational income	50	113	104	400	379
Raw material (or COGS)	8,730	9,214	9,464	11,387	12,756
Personnel cost	1,220	1,263	1,336	1,585	1,767
Other expenses (or SG&A)	8,192	7,977	8,348	8,058	8,848
EBITDA	4,334	5,283	6,159	6,808	6,061
EBITDA (%)	19%	22%	24%	24%	21%
Growth (%)		22%	17%	11%	-11%
Depreciation and amort.	817	849	817	857	1,101
EBIT	3,517	4,434	5,342	5,951	4,960
Less: Finance Costs	1,832	1,704	1,649	1,368	1,266
Pre tax profit(before extraordinary items)	1,735	2,842	3,797	4,983	4,074
Taxes	-340	-749	-1,219	-1,152	-511
Extraordinary items	-310	-274	0	-30	0
Minority interest	0	0	0	0	0
Reported net profit	1,085	1,819	2,578	3,801	3,564
Adjusted net profit	1,395	2,093	2,578	3,831	3,564
Margin (%)	5%	8%	10%	14%	12%
Diluted share cap. (mn)	100.02	100.02	100.02	99.47	97.42
Diluted EPS (₹)	10.85	18.19	25.77	38.21	36.58
Growth (%)		68%	42%	48%	-4%

Source: Company, JM Financial

Cash Flow Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Reported net profit	1,085	1,819	2,578	3,801	3,564
Depreciation and amort.	817	800	-10,493	583	938
-Inc/dec in working cap.	394	240	-1,372	-724	86
Others	2,225	1,592	1,545	968	886
Cash from operations (a)	4,522	4,451	-7,741	4,628	5,473
-Inc/dec in investments	-6	60	-131	58	-15
Capex	-844	-1,390	9,041	-4,079	-2,334
Others	-317	121	104	400	379
Cash flow from inv. (b)	-1,167	-1,210	9,014	-3,621	-1,969
Inc/-dec in capital	0	0	0	-5	-21
Dividend+Tax thereon	-233	-265	-421	-602	-412
Inc/-dec in loans	-1,139	-1,623	415	983	-1,413
Others	-1,856	-1,431	-1,179	-1,447	-1,752
Financial cash flow (c)	-3,228	-3,319	-1,185	-1,072	-3,597
Inc/-dec in cash (a+b+c)	126	-78	87	-65	-93
Opening cash balance	291	417	339	426	361
Closing cash balance	417	339	426	361	268

Source: Company, JM Financial

Balance Sheet (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Share capital	1,000	1,000	1,000	995	974
Reserves and surplus	4,873	6,701	9,359	12,471	15,134
Networth	5,873	7,702	10,359	13,465	16,108
Total loans	14,859	13,235	13,650	14,633	13,220
Minority interest	0	0	0	0	0
Sources of funds	20,731	20,937	24,010	28,098	29,328
Fixed assets	29,180	30,625	21,286	25,473	27,332
Less: Depn. and amort.	10,487	11,286	794	1,377	2,315
Net block	18,694	19,339	20,492	24,096	25,017
Capital WIP	125	70	369	260	735
Investments	75	15	146	88	103
Def tax assets/- liability	-1,620	-1,727	-1,932	-2,360	-1,950
Current assets					
Inventories	5,439	4,874	5,033	5,843	6,367
Sundry debtors	3,812	2,444	1,828	2,762	2,287
Cash & bank balances	417	339	426	361	268
Other current assets					
Loans & advances	1,336	1,298	662	1,303	1,083
Current liabilities & prov.					
Current liabilities	7,328	5,353	3,385	4,349	4,790
Provisions and others	461	497	161	229	214
Net current assets	3,215	3,104	4,403	5,691	5,001
Others (net)	243	136	531	323	421
Application of funds	20,731	20,937	24,010	28,098	29,328

Source: Company, JM Financial

Key Ratios					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
BV/Share (₹)	58.7	77.0	103.6	135.3	165.2
ROE (%)	23.8	27.2	24.9	28.5	22.1
Net Debt/equity ratio (x)	2.4	1.7	1.3	1.1	0.8
Valuation ratios (x)					
PER	2.8	3.1	4.2	6.7	6.9
PBV	0.5	0.7	1.1	1.9	1.5
EV/EBITDA	4.0	3.5	3.9	5.8	6.2
EV/Sales	0.8	0.8	0.9	1.4	1.3
Turnover ratios (no.)					
Debtor days	62	38	26	36	28
Inventory days	88	75	73	77	79
Creditor days	306	212	131	139	137

Source: Company, JM Financial

IG Petrochemicals Ltd | Not Rated

Growing domestic penetration through capacity expansion

IG Petrochemicals Ltd (IGPL) is the largest Phthalic Anhydride manufacturer in India, capturing c.50% of domestic market share and one of the lowest cost producers globally. Phthalic Anhydride is used in plasticizers, alkyd resins, unsaturated resins, and copper phthalocyanine. IGPL acquired Mysore Petro Chemicals Ltd. in 2017 to enter into Maleic Anhydride business. Maleic Anhydride is used across industries like coatings manufacturing, pharmaceuticals, agrochemicals, lubricates, and surfactants. IGPL exports to 15 countries and exports constitute c.15% of the total revenue. IGPL has annual contract for its sales to domestic customers that provide sales visibility. IGPL has planned a capacity expansion by 31% in FY19 with further capex to capacity expansion in for downstream products. The strategy to grow through forward integration and the expansion of current facility will cater to increasing demand from end-users. We do not have a rating on the stock.

- **Growth drivers:** IndianPetroChem estimates the global consumption of phthalic anhydride to grow at CAGR of 2.8% till 2021. On end-user front, India is below the world average per capita consumption in polyesters, plastics, paints etc. TechSci research estimates Indian paints & coating industry to grow at CAGR of 11.4% during 2018-2023. Furthermore, MarketsandMarkets estimates global plasticizers market to grow at CAGR of 5.7% during 2017-2022, which will drive growth in the consumption of phthalic anhydride. Allied market research values Indian PVC pipes market to grow at CAGR of 10.2% during 2016-2023 on back of increased focus of GOI on rural water management and upsurge in construction industry to support growth of phthalic anhydride.
- **Raw material is largely sourced domestically:** India is one of the largest exporters of Ortho-xylene, an important raw material for phthalic anhydride, hence IGPL is placed well with the availability of raw material. Additionally, export of phthalic anhydride is more than import of raw material, giving company natural hedge to price fluctuations.
- **Capacity expansion:** IGPL has planned to have brownfield expansion of 53,000 on-stream during FY19 at an investment of INR 3.2bn. For the same IGPL has taken ECB of INR 1.25bn. Additionally, capex of c. INR 1.0bn will be put for specialty plasticizers as part of downstream expansion.
- **Integrating the business:** Raw material for Maleic Anhydride comes from phthalic anhydride, supporting smooth functioning of the forward integrated plant. Steam generated from the production process is captively used to power and reduces the power and fuel cost. IGPL has its plant in close proximity to the majority of downstream industries (Chemical belt of India) reducing cost of the final product for the customers.
- **Financials:** IGPL has reported Revenue/ EBITDA/ PAT of INR 11.4bn/ INR 2.7bn/ INR 1.5bn. The growth drivers are in place and the capacity expansion will ensure capitalisation of benefits of demand growth. Key risks to the business: 1) Crude price fluctuation have direct impact on the raw material prices. 2) Removal of anti-dumping duty on phthalic anhydride.

Financial Summary					(INR mn)
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales	12,043	11,866	9,528	10,375	11,442
Sales growth (%)		-1.5	-19.7	8.9	10.3
EBITDA	605	803	1,132	1,682	2,673
EBITDA (%)	5%	7%	12%	16%	23%
Adjusted net profit	210	300	602	1,017	1,460
EPS (Rs)	1.0	2.9	19.5	33.0	47.4
EPS growth (%)		184.2	576.5	68.9	43.6
ROE (%)	8.2	12.6	20.2	26.0	27.7
PE (x)	22.9	18.6	5.3	11.4	13.5
Price/Book value (x)	0.3	0.7	1.1	3.0	3.7
EV/EBITDA (x)	3.8	3.5	3.5	7.0	7.3

Source: Company data, JM Financial. Note: Valuations as of 28/Feb/2019



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Key Data – IGPL IN

Current Market Price	INR247
Market cap (bn)	INR7.6/\$0.1
Free Float	45.6%
Shares in issue (mn)	30.79485
Diluted share (mn)	30.79485
3-mon avg daily val (mn)	INR10.6/US\$0.1
52-week range	798/215
Sensex/Nifty	35,867/10,793
INR/US\$	70.7

Price Performance

%	1M	6M	12M
Absolute	-17.6	-49.5	-64.5
Relative*	-16.5	-42.3	-69.4

* To the BSE Sensex

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Financial Tables (Consolidated)

Income Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales (Net of excise)	12,043	11,866	9,528	10,375	11,442
Growth (%)		-1%	-20%	9%	10%
Other operational income	97	67	36	32	37
Raw material (or COGS)	10,484	10,012	7,341	7,512	7,275
Personnel cost	251	285	298	391	558
Other expenses (or SG&A)	703	767	758	790	936
EBITDA	605	803	1,132	1,682	2,673
EBITDA (%)	5%	7%	12%	16%	23%
Growth (%)		33%	41%	49%	59%
Depreciation and amort.	180	164	175	211	257
EBIT	425	639	956	1,471	2,416
Less: Finance Costs	304	382	227	182	149
Pre-tax profit before exceptional Taxes	218	324	765	1,320	2,304
Taxes	-8	-24	-164	-303	-843
Extraordinary items	-179	-211	0	0	0
Reported net profit	31	89	602	1,017	1,460
Adjusted net profit	210	300	602	1,017	1,460
Margin (%)	0%	1%	6%	10%	13%
Diluted share cap. (mn)	31	31	31	31	31
Diluted EPS (₹)	1.02	2.89	19.54	33.01	47.42
Growth (%)		184%	577%	69%	44%

Source: Company, JM Financial

Cash Flow Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Reported net profit	31	89	602	1,017	1,460
Depreciation and amort.	180	-177	282	207	240
-Inc/dec in working cap.	-193	131	-190	-379	133
Others	262	315	191	151	113
Cash from operations (a)	281	358	884	995	1,945
-Inc/dec in investments	0	0	0	-87	0
Capex	-404	671	-321	-243	-1,811
Others	48	67	36	32	37
Cash flow from inv. (b)	-356	737	-285	-298	-1,774
Inc/-dec in capital	0	0	0	0	0
Dividend+Tax thereon	0	-37	-74	-74	-111
Inc/-dec in loans	222	-543	-380	-301	-5
Others	-207	-618	-160	-191	-136
Financial cash flow (c)	15	-1,198	-614	-565	-253
Inc/-dec in cash (a+b+c)	-61	-103	-15	131	-81
Opening cash balance	346	285	182	167	299
Closing cash balance	285	182	167	299	217

Source: Company, JM Financial

Balance Sheet (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Share capital	308	308	308	308	308
Reserves and surplus	2,265	2,080	2,675	3,608	4,970
Networth	2,573	2,388	2,983	3,916	5,278
Total loans	1,848	1,305	925	624	619
Sources of funds	4,420	3,693	3,907	4,540	5,897
Fixed assets	7,622	6,950	7,235	7,410	8,446
Less: Depn. and amort.	3,859	3,682	3,964	4,171	4,411
Net block	3,763	3,268	3,271	3,239	4,035
Capital WIP	6	8	44	112	886
Investments	1	1	1	168	596
Def tax assets/- liability	0	0	0	-20	-371
Current assets					
Inventories	1,415	866	835	966	944
Sundry debtors	1,743	1,452	1,088	1,498	1,388
Cash & bank balances	285	182	167	299	217
Other current assets	430	265	356	296	525
Loans & advances	0	0	4	4	6
Current liabilities & prov.					
Current liabilities	3,201	2,282	1,840	1,994	2,292
Provisions and others	21	66	20	28	36
Net current assets	650	416	591	1,041	751
Application of funds	4,420	3,693	3,907	4,540	5,897

Source: Company, JM Financial

Key Ratios					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
BV/Share (₹)	83.5	77.5	96.8	127.1	171.4
ROE (%)	8.2	12.6	20.2	26.0	27.7
Net Debt/equity ratio (x)	0.6	0.5	0.3	0.0	0.0
Valuation ratios (x)					
PER	22.9	18.6	5.3	11.4	13.5
PBV	0.3	0.7	1.1	3.0	3.7
EV/EBITDA	3.8	3.5	3.5	7.0	7.3
EV/Sales	0.2	0.2	0.4	1.1	1.7
Turnover ratios (no.)					
Debtor days	53	45	42	53	44
Inventory days	43	27	32	34	30
Creditor days	111	83	91	97	115

Source: Company, JM Financial

Phillips Carbon Black Ltd. | Not Rated

Growing on new applications and customer demands

Phillips Carbon Black Ltd (PCBL) is a largest carbon black producers and exporter in India with presence in 37 countries across 5 continents. PCBL has 4 manufacturing plants close to the eastern and western coasts that provide easy accessibility to ports for exports. Carbon black finds application as rubber black and specialty black. PCBL has 56 grades of carbon black that are used in various forms across industries like tyres, pigmentation, UV stabilisation, and conductive agent. PCBL has combined capacity of 76 MW of co-generation unit at the 4 plants that help them to reduce power and fuel cost while the excess is sold to third party. PCBL is consistently investing in capacity expansion and R&D to strengthen operating capability to global standards. PCBL is investing in production capacity to increase by 46% by the end of 2021 on current capacity of 515,000 MTPA. These are the growth drivers to cater to the increasing customer demands. We do not have a rating on the stock.

- **Cost effective operations:** PCBL has manufacturing plants at strategic locations that are in proximity to customers and result into lower logistic cost and easy access to raw materials. PCBL produces power from tail gas and has seen consistent growth in power generation. The plants have easy accessibility to the power grid to sell the excess power from captive production, PCBL sold c. 60% of the power generate to third party in FY18, contributing 3.25% to the total revenue.
- **Growth drivers:** Specialty carbon black contributed with 7% of the total volumes but 12% by value. PCBL has completed production line of c.22,000 for specialty carbon black in Sep 2018 as EBITDA margins are 3.5x the commodity grade carbon black. PCBL has invested into R&D that resulted into 24 specialty carbon black grades. These are used in polyester textile, engineering plastics, wire, news ink, and paints/coatings. R&D is focused towards value added products in applications like automotive, consumer electronics and home appliances market.
- **Expanding production capacity to capitalise on expected growth in demand:** PCBL operated at utilisation of 95.1% of the effective capacity for carbon black. Thus, PCBL has planned for brownfield expansion at Palej for specialty carbon black with capacity of 32,000 MTPA while Mundra site with have capacity expansion of 56,000 MTPA for carbon black. Additionally, a new greenfield expansion for carbon black is planned with capacity of 150,000 MTPA in South India. TechSci research estimates Indian carbon black market to grow at CAGR of c. 8.6% during 2017-2026 on back of increasing tyre manufacturing and antidumping duty on imports on GOI.
- **Financials:** PCBL reported revenue/ EBITDA/ PAT of INR 25bn/ 3.8bn/ 2.3bn in FY18. PCBL has seen growing EBITDA/ton from INR 6451 /ton in FY16 to INR 10550 /ton FY18. The company is improving margins from operations as well as value added product mix. Key risks to the business are: 1) Margin correction as the major revenue comes from commodity grade product. 2) Removal of anti-dumping duty by GOI.

Financial Summary					(INR mn)
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales	22,775	24,702	18,941	19,270	25,470
Sales growth (%)		8.5	-23.3	1.7	32.2
EBITDA	253	1,510	1,652	2,581	3,768
EBITDA (%)	1%	6%	9%	13%	15%
Adjusted net profit	-857	107	146	687	2,264
EPS (Rs)	-5.0	0.6	0.9	4.0	13.3
EPS growth (%)		-111.9	53.5	331.5	234.3
ROE (%)	-17.1	2.1	1.4	6.1	16.4
PE (x)	NA	40.6	19.3	16.0	15.9
Price/Book value (x)	0.4	0.8	0.3	1.0	2.6
EV/EBITDA (x)	48.3	10.2	6.4	6.0	10.3

Source: Company data, JM Financial. Note: Valuations as of 26/Feb/2019



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Key Data – PHCB IN

Current Market Price	INR155
Market cap (bn)	INR26.8/\$0.4
Free Float	43.1%
Shares in issue (mn)	172.3379
Diluted share (mn)	172.3379
3-mon avg daily val (mn)	INR195.0/US\$2.8
52-week range	287/135
Sensex/Nifty	35,867/10,793
INR/US\$	70.7

Price Performance

%	1M	6M	12M
Absolute	-11.2	-35.7	-35.2
Relative*	-10.1	-28.5	-40.1

* To the BSE Sensex

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Income Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales (Net of excise)	22,775	24,702	18,941	19,270	25,470
Growth (%)		8%	-23%	2%	32%
Other operational income	225	142	165	186	288
Raw material (or COGS)	18,305	19,404	13,446	12,365	16,593
Personnel cost	633	704	728	820	974
Other expenses (or SG&A)	3,584	3,084	3,116	3,503	4,135
EBITDA	253	1,510	1,652	2,581	3,768
EBITDA (%)	1%	6%	9%	13%	15%
Growth (%)		498%	9%	56%	46%
Depreciation and amort.	546	584	622	606	605
EBIT	-293	927	1,030	1,975	3,163
Less: Finance Costs	803	948	721	515	414
Pre tax profit	-870	121	474	1,647	3,036
Taxes	-12	17	315	960	740
Extraordinary items	-9	-1	14	6	24
Minority interest	-3	-3	0	-6	8
Reported net profit	-869	104	159	687	2,296
Adjusted net profit	-857	107	146	687	2,264
Margin (%)	NM	0%	1%	4%	9%
Diluted share cap. (mn)	172.35	172.35	172.35	172.35	172.35
Diluted EPS (₹)	-5.04	0.60	0.92	3.99	13.32
Growth (%)		-112%	54%	331%	234%

Source: Company, JM Financial

Cash Flow Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Reported net profit	-869	104	159	687	2,296
Depreciation and amort.	546	571	-4,121	606	576
-Inc/dec in working cap.	-1,748	-1,208	4,061	1,896	-349
Others	577	806	556	328	126
Cash from operations (a)	-1,494	273	655	3,517	2,649
-Inc/dec in investments	-5	-474	-1,426	-627	-249
Capex	-409	-257	-1,524	-322	-565
Others	54	142	165	186	288
Cash flow from inv. (b)	-360	-590	-2,784	-762	-526
Inc/-dec in capital	0	0	0	0	0
Dividend+Tax thereon	-17	-35	-42	-353	-273
Inc/-dec in loans	1,956	1,331	-1,980	-2,635	-409
Others	-718	-960	4,541	-40	39
Financial cash flow (c)	1,220	337	2,520	-3,028	-642
Inc/-dec in cash (a+b+c)	-634	20	390	-273	1,481
Opening cash balance	742	109	129	519	245
Closing cash balance	109	129	519	245	1,726

Source: Company, JM Financial

Balance Sheet (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Share capital	345	345	345	345	345
Reserves and surplus	4,668	4,727	10,104	10,962	13,432
Networth	5,013	5,072	10,448	11,307	13,776
Total loans	10,866	12,197	10,217	7,582	7,173
Minority interest	70	69	67	58	66
Sources of funds	15,950	17,338	20,732	18,947	21,016
Fixed assets	13,061	13,257	14,780	15,103	15,796
Less: Depn. and amort.	4,172	4,742	621	1,227	1,803
Net block	8,889	8,515	14,159	13,876	13,992
Capital WIP	735	796	797	796	668
Investments	382	856	2,281	2,908	3,158
Def tax assets/- liability	-299	-278	-1,474	-2,047	-2,273
Current assets					
Inventories	4,287	2,968	2,442	2,435	3,099
Sundry debtors	5,170	5,214	4,382	4,657	5,220
Cash & bank balances	109	129	519	245	1,726
Other current assets	841	770	479	522	618
Loans & advances	866	867	844	362	233
Current liabilities & prov.					
Current liabilities	4,969	2,333	3,608	4,633	4,533
Provisions and others	62	166	89	173	893
Net current assets	6,242	7,449	4,969	3,415	5,470
Application of funds	15,950	17,338	20,732	18,948	21,015

Source: Company, JM Financial

Key Ratios					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
BV/Share (₹)	29.1	29.4	60.6	65.6	79.9
ROE (%)	-17.1	2.1	1.4	6.1	16.4
Net Debt/equity ratio (x)	2.1	2.2	0.7	0.4	0.2
Valuation ratios (x)					
PER	NA	40.6	19.3	16.0	15.9
PBV	0.4	0.8	0.3	1.0	2.6
EV/EBITDA	48.3	10.2	6.4	6.0	10.3
EV/Sales	0.5	0.6	0.6	0.8	1.5
Turnover ratios (no.)					
Debtor days	83	77	84	88	75
Inventory days	69	44	47	46	44
Creditor days	99	44	98	137	100

Source: Company, JM Financial

Vinati Organics | Not Rated

No stopping growth in ATBS and IBB

Vinati Organics (VOL) was established in 1989 focusing on manufacturing of specialty chemicals and organic intermediates. The company enjoys global leadership in IBB (65% market share) and ATBS (55% market share) simultaneously being domestic leader in IB (70% market share) and HP-MTBE. VOL has exported to 31 countries in Americas, Europe, Australia and Asia. VOL has been increasing their product basket to leverage their expertise and benefit from cost efficiencies associated with product and process integration. This has enabled them to attract customers in pharmaceutical, oil drilling, personal care, and agrochemicals etc. VOL has grown EBITDA at 5-year CAGR of 14% till FY18. VOL is investing INR 2.4bn to earn sales revenue of c. INR 3.5-4bn and may continue to grow at 25% CAGR for next three years. With multiple products under development, VOL will continue to write new growth stories. We do not have a rating on the stock.

- **New applications in ATBS:** ATBS accounted for more than 50% of total revenue in FY18. VOL is leader in IB, an important raw material for ATBS and thus provides smooth raw material supply for ATBS facility. VOL has proprietary technology for ATBS and recent price negotiations provide a healthier margin for the product. ATBS is used to make polymers which provide hydrolytic and thermal stability to the products. Furthermore, ATBS is finding new applications across industries like oil exploration and mining, thus VOL has been able to add new customers for ATBS. VOL is expanding the ATBS capacity from 26,000 TPA to 40,000 TPA at expense of INR 750-800mn that will be completed by April 2019.
- **Capacity expansion in IBB:** IBB is basic raw material for pharmaceutical and perfumery industries. It is also a key raw material for Ibuprofen synthesis (VOL has consistently given IBB at purity of 99.8%, above the international standard of 99.5%). Grandview research estimates the global migraine drugs market to grow at CAGR of 18% till 2025. VOL expanded its capacity from 16,000 MTPA to 25,000 MTPA to cater to this increasing demand of Ibuprofen worldwide and the current capacity utilisation is c.50% giving scope to provide for next 4 years if demand grows at c.18-19%.
- **Widening the product portfolio:** The new product portfolio consisting of para tertiary butyl phenol and ortho tert butyl phenol to be used in perfumery industry and 2,4-di tert butyl phenol and 2,6-di tert-butyl phenol to be used for making antioxidants is expected to finish by April 2019.
- **Financials:** Vinati Organics reported revenue/EBITDA/PAT of INR 7.4bn/2.1bn/1.4bn in FY18. The company is focused towards bringing new products through R&D and benefit from forward and backward integration of product portfolio. Key risks to the business are: 1) Exchange risk fluctuation (c.71% of the revenue came from Outside India). 2) Slowdown in end-user industry like oil exploration, pharmaceutical etc. 3) Margin correction (high EBITDA margin of c. 36% in 9MFY19) due to economic downturn.

Financial Summary					(INR mn)
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales	6,873	7,590	6,309	6,408	7,434
Sales growth (%)		10.4	-16.9	1.6	16.0
EBITDA	1,529	1,918	2,068	2,170	2,109
EBITDA (%)	22.0	24.8	32.8	33.9	28.4
Adjusted net profit	862	1,158	1,316	1,403	1,439
EPS (Rs)	17.4	22.4	25.5	27.2	27.9
EPS growth (%)		28.6	13.6	6.6	2.7
ROE (%)	27.8	26.7	24.2	20.6	18.1
PE (x)	15.6	22.9	15.2	27.7	32.2
Price/Book value (x)	4.3	6.1	3.7	5.7	5.8
EV/EBITDA (x)	9.6	14.0	9.4	17.6	21.4

Source: Company data, JM Financial. Note: Valuations as of 27/Feb/2019



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Key Data – VO IN

Current Market Price	INR1444
Market cap (bn)	INR74.2/\$1.0
Free Float	26.0%
Shares in issue (mn)	51.39103
Diluted share (mn)	51.39103
3-mon avg daily val (mn)	INR37.0/US\$0.5
52-week range	1728/765
Sensex/Nifty	35,867/10,793
INR/US\$	70.7

Price Performance

%	1M	6M	12M
Absolute	-8.5	2.2	69.5
Relative*	-7.4	9.4	64.6

* To the BSE Sensex

JM Financial Research is also available on:
Bloomberg - JMFR <GO>,
Thomson Publisher & Reuters
S&P Capital IQ and FactSet

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

Financial Tables (Standalone)

Income Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Net sales (Net of excise)	6,873	7,590	6,309	6,408	7,434
Growth (%)		10.4	-16.9	1.6	16.0
Other operational income	89	128	0	0	0
Raw material (or COGS)	4,188	4,565	2,963	3,005	3,776
Personnel cost	274	319	359	419	490
Other expenses (or SG&A)	970	915	920	814	1,059
EBITDA	1,529	1,918	2,068	2,170	2,109
EBITDA (%)	22.0	24.8	32.8	33.9	28.4
Growth (%)		13.1	31.9	3.3	-16.2
Other non-op. income	92	91	62	125	170
Depreciation and amort.	153	177	185	216	234
EBIT	1,376	1,741	1,883	1,953	1,876
Less: Finance Costs	-181	-98	-79	-19	-12
Pre tax profit	1,286	1,735	1,866	2,060	2,034
Taxes	424	577	550	657	595
Reported net profit	862	1,158	1,316	1,403	1,439
Adjusted net profit	862	1,158	1,316	1,403	1,439
Margin (%)	12.4	15.0	20.9	21.9	19.4
Diluted share cap. (mn)	49.37	51.59	51.59	51.59	51.51
Diluted EPS (₹)	17.45	22.44	25.50	27.19	27.93

Source: Company, JM Financial

Cash Flow Statement (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Reported net profit	862	1,158	1,316	1,403	1,439
Depreciation and amort.	153	182	-850	216	238
-Inc/dec in working cap.	159	-103	393	-578	-424
Others	-92	-91	-62	-125	-170
Cash from operations (a)	1,081	1,145	797	915	1,083
-Inc/dec in investments	100	0	-6	-585	-699
Capex	-293	-412	367	-1,136	-131
Others	40	-99	-48	174	-275
Cash flow from inv. (b)	-153	-511	313	-1,546	-1,105
Inc/-dec in capital	0	4	0	0	0
Dividend+Tax thereon	-173	-217	-248	-311	-311
Inc/-dec in loans	-757	-963	-494	-136	129
Others	92	386	97	390	209
Financial cash flow (c)	-838	-790	-646	-57	27
Inc/-dec in cash (a+b+c)	89	-156	464	-688	5
Opening cash balance	338	427	271	735	47
Closing cash balance	427	271	735	47	52

Source: Company, JM Financial

Balance Sheet (INR mn)					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
Share capital	99	103	103	103	103
Reserves and surplus	3,002	4,237	5,340	6,697	7,864
Networth	3,101	4,340	5,443	6,800	7,967
Total loans	1,616	653	159	23	152
Minority interest					
Sources of funds	4,716	4,993	5,602	6,823	8,119
Intangible assets	57	65	54	45	35
Fixed assets	3,634	4,028	3,701	4,836	4,966
Less: Depn. and amort.	650	821	0	205	433
Net block	3,042	3,273	3,756	4,676	4,568
Capital WIP	101	200	248	74	349
Investments	27	27	34	618	1,317
Def tax assets/- liability	-331	-390	-494	-695	-809
Current assets	2,327	2,484	2,656	2,682	3,335
Inventories	466	545	433	651	822
Sundry debtors	1,151	1,291	1,148	1,405	1,771
Cash & bank balances	427	271	735	47	52
Other current assets	4	26	312	536	650
Loans & advances	278	351	27	42	39
Current liabilities & prov.	473	609	734	693	872
Current liabilities	267	353	629	484	814
Provisions and others	206	256	105	209	58
Net current assets	1,853	1,876	1,921	1,990	2,463
Others (net)	24	8	137	161	230
Application of funds	4,716	4,993	5,602	6,823	8,119

Source: Company, JM Financial

Key Ratios					
Y/E March	FY14A	FY15A	FY16A	FY17A	FY18A
BV/Share (₹)	62.8	84.1	105.5	131.8	154.6
ROE (%)	27.8	26.7	24.2	20.6	18.1
Net Debt/equity ratio (x)	0.4	0.1	-0.1	-0.1	-0.2
Valuation ratios (x)					
PER	15.6	22.9	15.2	27.7	32.2
PBV	4.3	6.1	3.7	5.7	5.8
EV/EBITDA	9.6	14.0	9.4	17.6	21.4
EV/Sales	2.1	3.5	3.1	6.0	6.1
Turnover ratios (no.)					
Debtor days	61	62	66	80	87
Inventory days	25	26	25	37	40
Creditor days	23	28	77	59	79

Source: Company, JM Financial

APPENDIX I

JM Financial Institutional Securities Limited

(formerly known as JM Financial Securities Limited)

Corporate Identity Number: U67100MH2017PLC296081**Member of BSE Ltd., National Stock Exchange of India Ltd. and Metropolitan Stock Exchange of India Ltd.****SEBI Registration Nos.: Stock Broker - INZ000163434, Research Analyst – INH000000610****Registered Office: 7th Floor, Cnergy, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India.****Board: +9122 6630 3030 | Fax: +91 22 6630 3488 | Email: jmfinancial.research@jmfl.com | www.jmfl.com****Compliance Officer: Mr. Sunny Shah | Tel: +91 22 6630 3383 | Email: sunny.shah@jmfl.com**

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Rating	Meaning
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Hold	Price expected to move in the range of 10% downside to 15% upside from the current market price.
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