

India

REDUCE (previously ADD)

Consensus ratings*: Buy 21 Hold 6 Sell 1

Current price:	Rs3,231
Target price:	Rs2,417
Previous target:	Rs3,566
Up/downside:	-25.2%
InCred Research / Consensus:	-36.9%
Reuters:	PIIL.NS
Bloomberg:	PI IN
Market cap:	US\$6,751m
	Rs490,209m
Average daily turnover:	US\$15.8m
	Rs1147.8m
Current shares o/s:	138.0m
Free float:	53.3%

*Source: Bloomberg



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	(0.2)	(3.1)	29.5
Relative (%)	1.2	(0.4)	24.2

Major shareholders	% held
Promoter & Promoter Group	46.8
ICICI Prudential	3.5
Axis Mutual Fund	2.5

PI Industries Ltd

Downgrade to REDUCE

- The rapid rise in glyphosate prices led to overall higher prices and consumption of other herbicides. This led to a pre-emergent herbicide like pyroxasulfone posting a higher volume for PI Industries, which may not be repeated in CY23F.
- The R&D pipeline of its big clients such as Kumiai and Sumitomo appears to be thin, raising a question mark over the future growth potential of PI Industries.
- Rynaxypyr is going off-patent and given the number of firms going to make this molecule, it's unlikely that PI Industries can hope for high-teen growth. Consensus EPS too high & risk-reward unfavourable. Downgrade to REDUCE.

2022 was a windfall for pyroxasulfone - may not be repeated

China produces almost 50% of glyphosate globally and exports almost 90% of its output to the global market. Bayer is another big manufacturer accounting for 30% of global output. In 2022, there was production disruption in China due to the 'Zero Covid policy' which led to skyrocketing prices of glyphosate before wheat and corn planting season in USA. In panic, people preferred a pre-emergent herbicide like pyroxasulfone and other herbicides. This led to a rise in the prices of almost all herbicides during Mar-Jul 2022 and since then they are cooling off. As the Chinese capacity comes online (indicated by falling glyphosate prices) other herbicide volumes as well as prices may fall. It is important to note that Bayer has done some trait addition in various GMO seeds (widely used in USA and LATAM) which led to glyphosate becoming almost a prerequisite for the farmers (Bayer sells these seeds under the Roundup Ready brand name). The only other option is using a pre-emergent herbicide (pre-emergent means that herbicide is applied after the crop seeds are planted but before the crop and weeds emerge from the soil) or an age-old safe herbicide like 2,4D, glufosinate, etc. The crux of the matter is that 2022 was unique for pyroxasulfone which may not be repeated (at least the probability is quite low).

New molecules of key clients such as Kumiai & Sumitomo are few

Apart from pyroxasulfone, Kumiai hasn't come out with any blockbuster product in the last 10 years. For Sumitomo, apart from clothianidin, no other new product has turned big in the last 10 years. Currently, we do not find any new R&D molecule from Kumiai, but Sumitomo has five molecules whose 2021 sales were negligible. To sustain growth, PI Industries (PI) will have to get a CRAMS contract for these molecules and pray for their success. While it may happen, the probability that it will happen in next few quarters is slim. The big Rynaxypyr contract has gone to UPL and, at best, PI can supply the intermediary. Also, multiple new players foraging into Rynaxypyr makes the growth challenging for PI.

Downgrade to REDUCE with a lower target price of Rs2,417

We value the stock at 25x FY25F earnings to arrive at our new target price of Rs2,417 (Rs3,566 earlier). The lower-than-current multiple is due to the growth path not visible beyond FY24F (too much dependence on a single molecule) Upside risk: Any big CRAMS order from Sumitomo will lead to EPS upgrade and thereby the target price as well.

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Financial Summary

	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Revenue (Rsm)	46,340	53,466	65,307	72,181	79,852
Operating EBITDA (Rsm)	10,692	11,895	16,557	18,835	21,359
Net Profit (Rsm)	7,953	8,909	12,481	12,948	14,687
Core EPS (Rs)	52.4	58.6	82.2	85.2	96.7
Core EPS Growth	58.3%	12.0%	40.1%	3.7%	13.4%
FD Core P/E (x)	61.72	55.09	39.33	37.91	33.42
DPS (Rs)	2.0	2.2	3.1	3.3	3.7
Dividend Yield	0.06%	0.07%	0.10%	0.10%	0.11%
EV/EBITDA (x)	44.04	39.59	28.99	25.10	21.66
P/FCFE (x)	(23.95)	147.44	(52.26)	61.44	43.90
Net Gearing	(37.4%)	(32.6%)	(14.9%)	(21.0%)	(28.3%)
P/BV (x)	8.77	8.02	6.70	5.73	4.92
ROE	20.0%	15.5%	18.6%	16.3%	15.8%
% Change In Core EPS Estimates			1.52%	(15.33%)	
InCred Research/Consensus EPS (x)					

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Downgrade to REDUCE

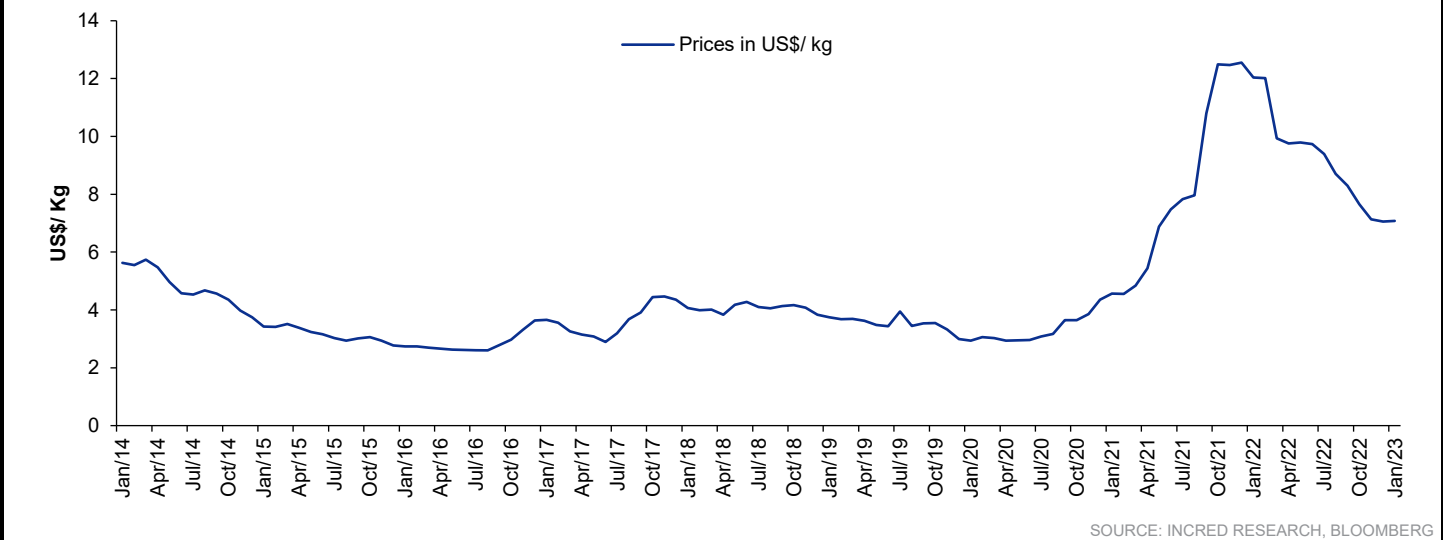
The pyroxasulfone-driven growth cannot take PI Industries too far and we find the new product pipeline also doesn't appear impressive. The growth is likely to taper down in the coming quarters after impressive growth in the last six quarters.

Pyroxasulfone growth to taper down in the coming quarters as glyphosate production ramps up globally

The surge in the prices of glyphosate made life easy for all herbicides as they became relatively cheaper and thus their sales increased. All herbicides got this benefit and Kumiai's pyroxasulfone was no exception. We have seen the prices of pyroxasulfone rising to US\$113/kg, which used to be a near US\$75-80/kg a few years ago.

Glyphosate prices skyrocketed in CY22 - the reasons were supply chain problems and more and more roundup-ready GMO seeds ➤

Figure 1: As China is one of the major producers, which was going through the Covid-19 pandemic-led countrywide closure, glyphosate prices skyrocketed in CY22; also, the usage of GMO seeds means more and more roundup-ready seeds which leads to increased glyphosate usage

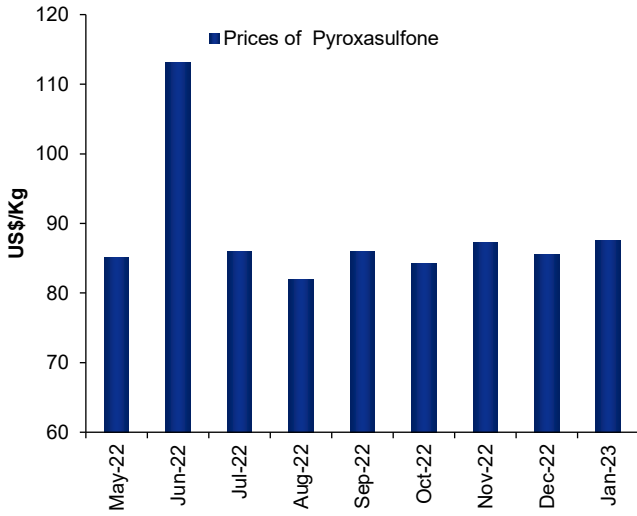


Annual output of glyphosate raw powder in China is primarily maintained at about 580,000t, around 10% of which is supplied for domestic use while a major portion is exported to the international market. Bayer produces 380,000t. Since 2021, there is energy, food and industrial chain crisis due to the complex international political and economic scenario such as geopolitical instability, re-emergence of the Covid-19 pandemic and trade disputes. This led to significant uncertainty on economic growth; the rise in raw material prices, food prices, and the continuous expansion of the planting area (acreage) of GMO crops have all benefited glyphosate, which used to be a herbicide with a depressed market since the past several years.

Rising prices of glyphosate forced the farmers to use a pre-emergent herbicide like pyroxasulfone ➤

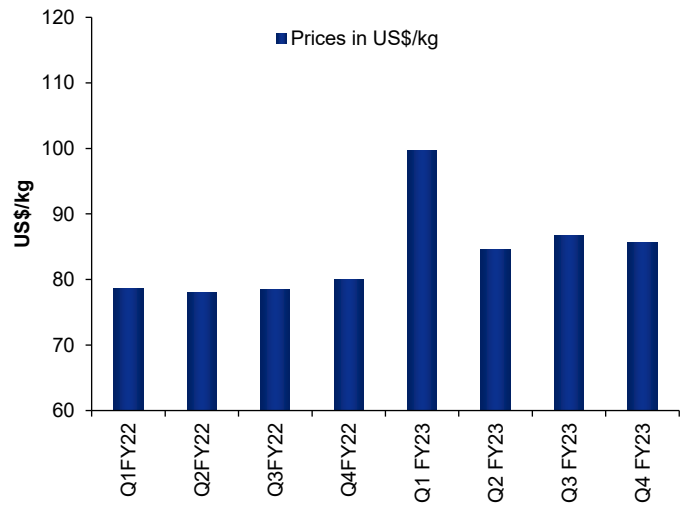
Pyroxasulfone is a pre-emergent wheat herbicide and is widely used in USA as well as in Canada. Despite its wide usage since the last seven years, there are only two cases of known weed resistance which is good news for the product. Please note that the wheat season in USA is Mar-May (when it is sown) and around Sep it is reaped. Therefore, rising glyphosate prices forced the farmers to look for an alternative and it came in the form of pyroxasulfone as well as glufosinate.

Figure 2: The prices of pyrooxasulfone in USA skyrocketed in May-Jun 2022 as glyphosate prices were rising and the wheat sowing season was in full swing



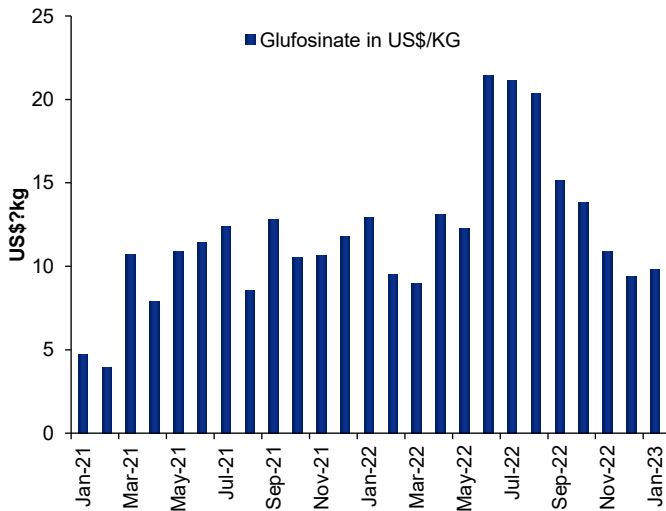
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 3: Normally, pyrooxasulfone prices remain in the range of US\$75-80/kg, but 2022 was the first year when glyphosate shortage led to panic buying



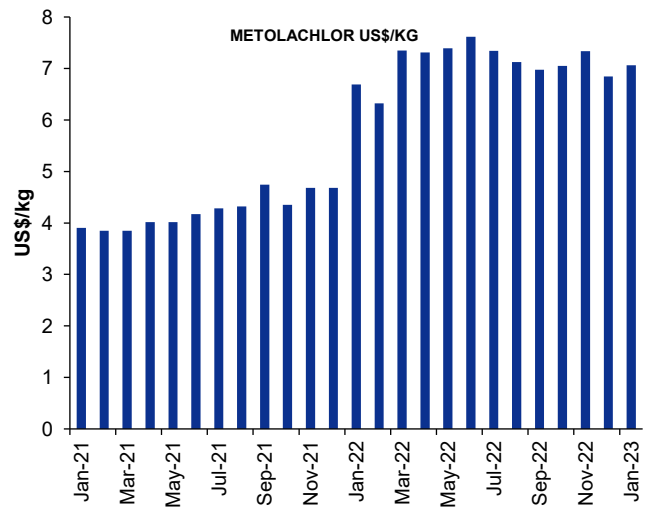
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 4: Around the same time, there was a steep rise in the prices of glufosinate...



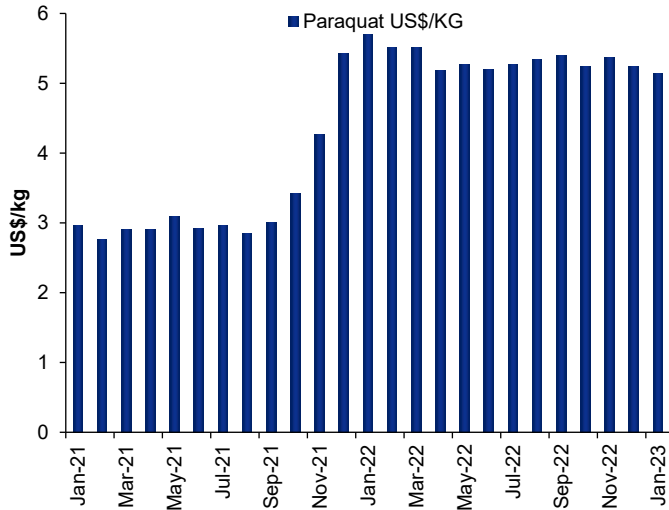
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 5: ...and that of metolachlor...



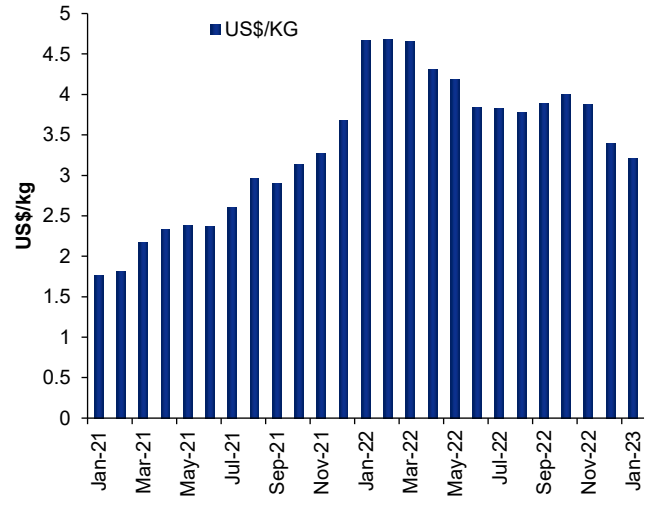
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 6: ...of paraquat...



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 7: ...and that of 2,4 D as well



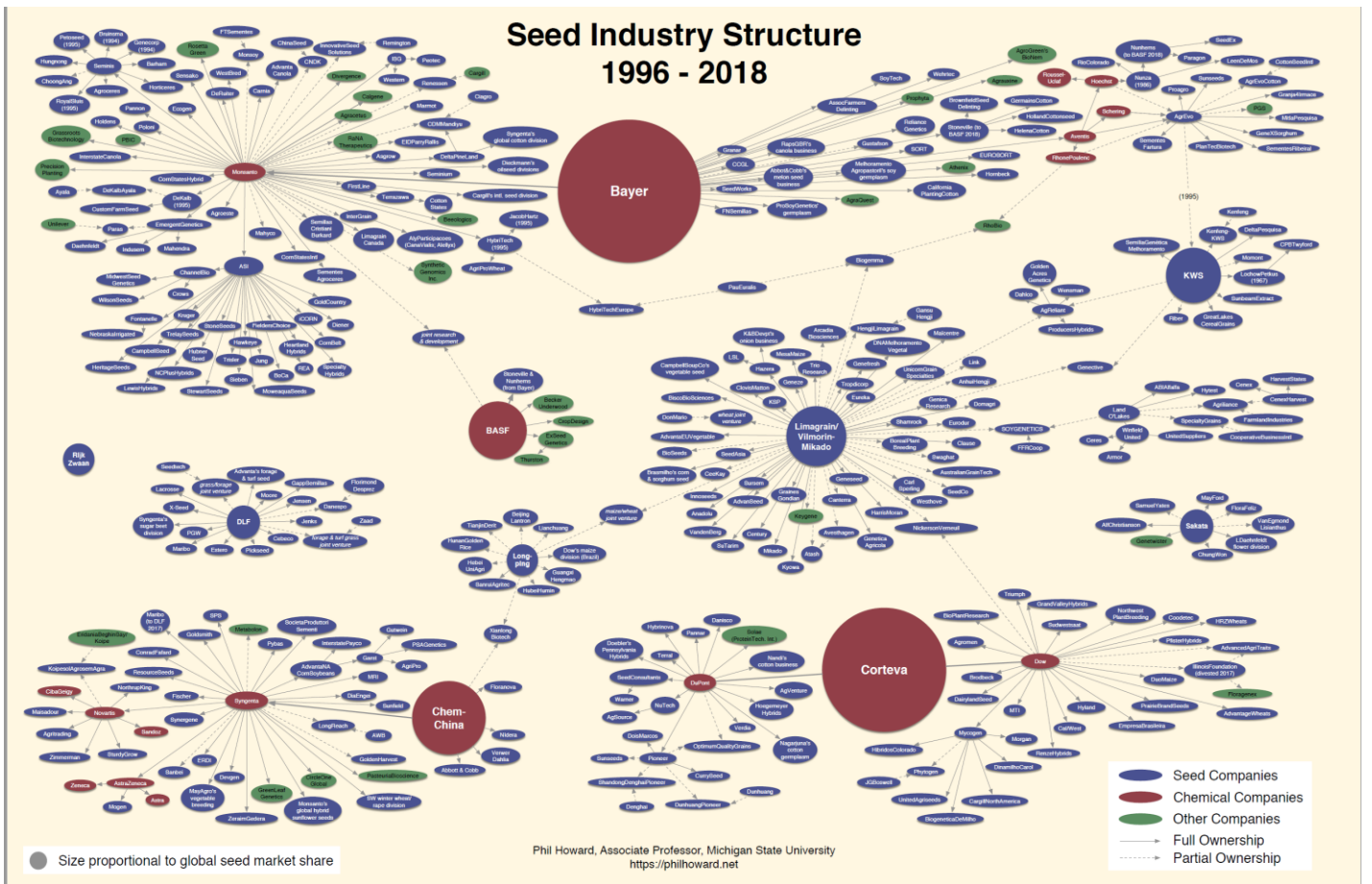
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Essentially, it was the shortage of glyphosate which led to a sharp rise in the prices of all herbicides, As China's economy is opening and production is starting, things are expected to normalize.

Please note that glyphosate market is difficult to replace on a sustained basis and many productive seeds can only withstand glyphosate i.e. they are roundup-ready▶

Roundup-ready crops (RR crops) are genetically engineered crops that have had their DNA altered to allow them to withstand the herbicide glyphosate (the active ingredient of Monsanto's herbicide Roundup). They are also known as 'glyphosate tolerant crops.' RR crops deregulated in USA include corn, soybean, canola, cotton, sugar beet, and alfalfa. When planting glyphosate-tolerant crops, a farmer can spray the entire crop with glyphosate, killing only the weeds and leave the crop alive.

Figure 8: The dominance of Monsanto (now Bayer) is visible in this chart; the company keeps designing RR-ready seeds and hence, farmers have no option but to use glyphosate; the advent of GM seeds and gene editing has changed the game totally



SOURCE: PHIL HOWARD, ASSOCIATE PROFESSOR, MICHIGAN STATE UNIVERSITY
[HTTPS://PHILHOWARD.NET](https://philhoward.net)

Stack trait seeds are more favourable to Bayer and it leads in this area ➤

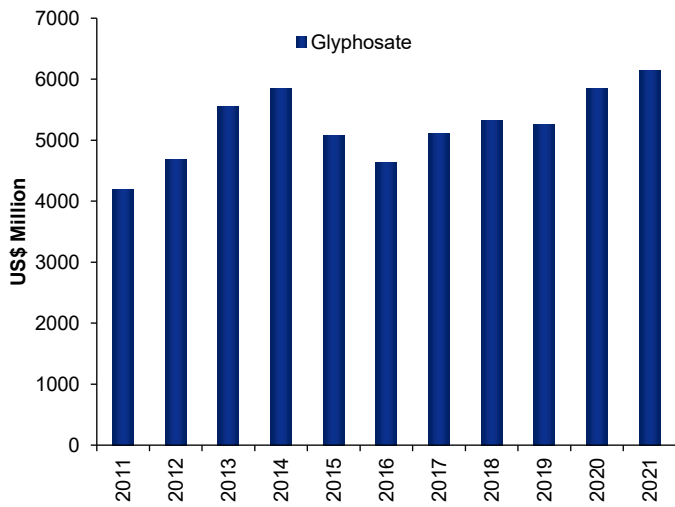
Gene stacking refers to the process of combining genes of interest into a single plant line. It is used in conventional as well as genetically modified (GM) crops to develop improved lines. A stacked GM line contains at least two novel genes. Stacked genes are sometimes referred to as stacked events; gene stacking as gene pyramiding.

Bayer’s strategy is again centered around glyphosate; it uses roundup-ready (glyphosate-tolerant) as the base trait and stacks other characteristics like being resistant to the fungus or the insects above it.

Hence, glyphosate should remain the leader in herbicides ➤

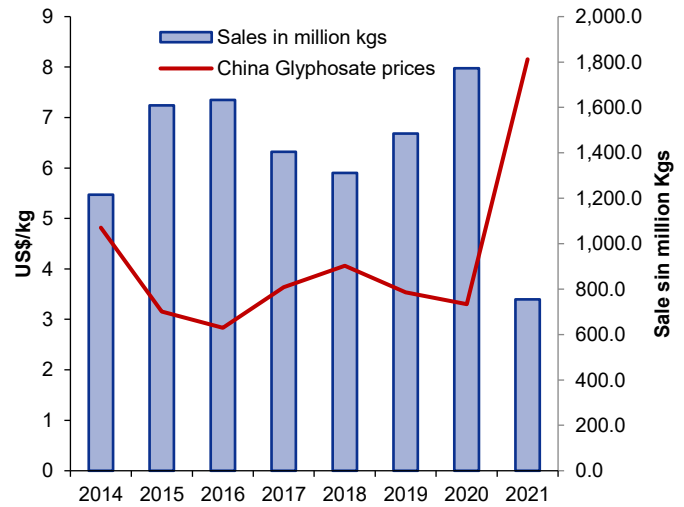
All this point to the fact that glyphosate will remain the leader in the marketplace. There is a risk of a ban on this molecule but Bayer in trading very cautiously. Even Indian players like Atul are expanding into this market.

Figure 9: Glyphosate sales on the recovery path



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 10: Also, it's in the interest of Bayer to keep the prices low as higher prices lead to lower usage of glyphosate as well as seeds

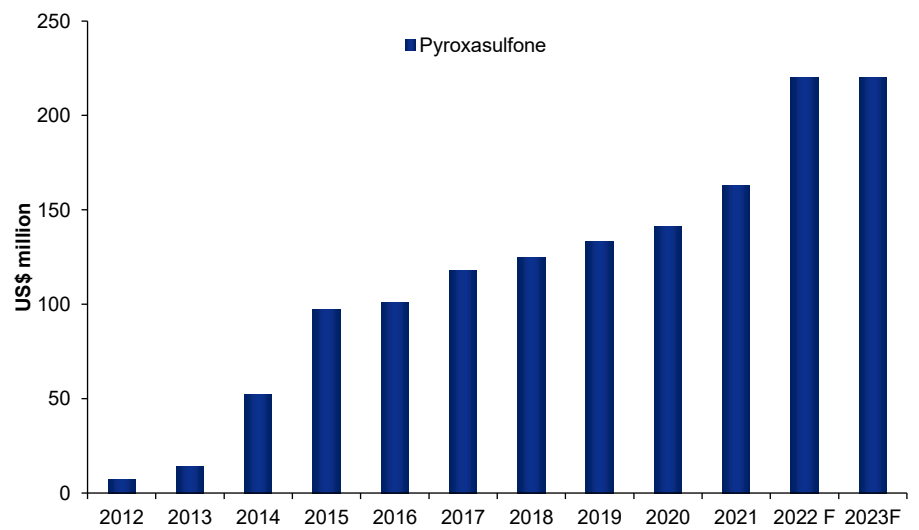


SOURCE: INCRED RESEARCH, COMPANY REPORTS

Hence, extraordinary sales of pyrooxasulfone are a flash in the pan and will vanish ➤

Long-term high prices of glyphosate are not in the interest of Bayer as they will lead to the collapse of its highly profitable seed business.

Figure 11: Pyrooxasulfone growth to stagnate in the coming period as glyphosate production increases



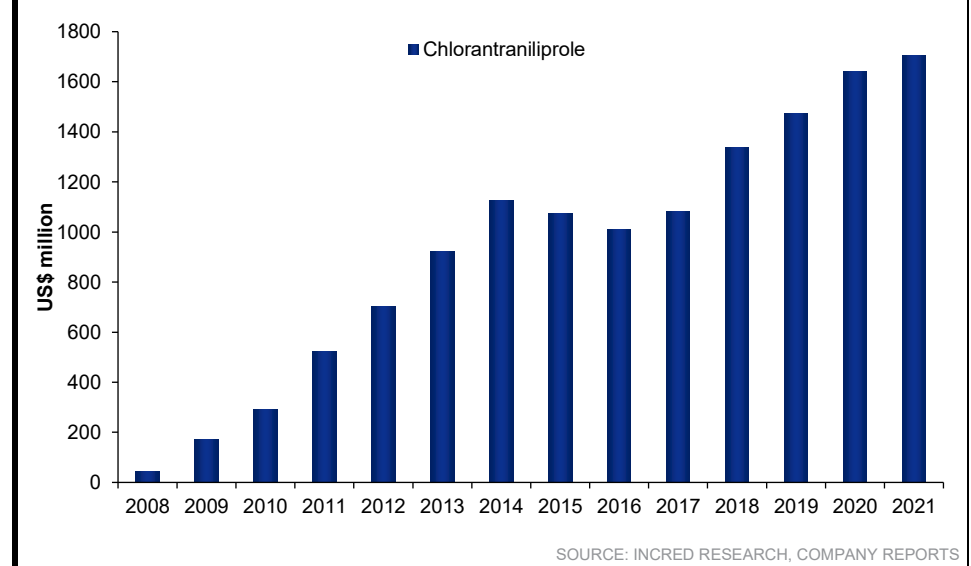
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Rynaxypyr (chlorantraniliprole) hasn't turned out to be a driver, as expected

Rynaxypyr is one of the bigger molecules in the global market with a market size of US\$1.7bn. Its contract from the FMC was one of the key drivers for the stock rerating during 2019-20. However, with rising competition and the product going off-patent in the global market, we are not so sure about its growth potential anymore. Moreover, PI Industries supplies 2-amino-5-chloro-N, 3-dimethylbenzamidin which is an intermediary for making chlorantraniliprole and as the market becomes more fragmented, its volume growth will become a risk.

Rynaxypyr or chlorantraniliprole is one of the most successful insecticide >

Figure 12: With US\$1.7bn in sales, Rynaxypyr or chlorantraniliprole is one of the most successful insecticides



During the patent period itself, multiple companies have entered the Rynaxypyr market >

FMC has become the innovator of this product after buying it from Dupont. The product is going off-patent in 2023 and multiple Indian companies are launching their versions. FMC has also tied up with the other Indian players to supply the molecule.

- Dhanuka Agritech launched Cover in India in 2015 for use on rice, soybean and sugarcane crops.
- Arysta Lifesciences (now acquired by UPL) markets the product as Prevathon in Myanmar.
- In Nov 2019, the Institute for the Control of Agrochemicals, Ministry of Agriculture of China (ICAMA) granted the registration for 200 g/l chlorantraniliprole SC, filed by Syngenta, to be applied to control lawn army worm and fall army worm (*spodoptera litura*) in sweet potato. This is reported to be the first time that the registration of chlorantraniliprole has been approved for application on lawn and sweet potatoes.
- In Feb 2020, Syngenta received the approval for its liquid termiticide, Altriset (chlorantraniliprole), in Hawaii.
- Syngenta launched Instivo (chlorantraniliprole + abamectin) in Brazil in 2021 for use on beans, cotton, maize and soybean crops.
- In Mar 2022, FMC India debuted Corprima (chlorantraniliprole), for the control of lepidopteran pests such as fruit borers (*leucinodes orbonalis*) in tomato and okra.
- Syngenta introduced Voliam (chlorantraniliprole) in Portugal in 2022 for the control of lepidopteran and coleopteran pests on pome fruits, grapevines, maize, potato and dried fruits. FMC debuted Coragen MaX (chlorantraniliprole)

in Canada in 2022 for the control of 'key' pests in maize, potato and vegetable crops.

Multiple Indian and Chinese companies are installing chlorantraniliprole capacities and competition will become tough as it goes off-patent ➤

- In India, Natco Pharma is already manufacturing chlorantraniliprole.
- Atul is also installing chlorantraniliprole manufacturing capacity.
- Best Agrochem's capacity is also in the pipeline.
- Heranba is planning to set up production capacity.
- Gharda Chemicals, Frontier Agrotech Private Limited, and Laurus Synthesis are the other Indian companies in the race for Rynaxypyr.
- Multiple Chinese companies are also planning to foray into this space, out of which we have identified some like Lier Chemical, Youdao Chemicals, and Xinanguri Bote

FMC has tied up with UPL as well, thereby limiting the market of PI Industries ➤

FMC and UPL inked a multi-year strategic collaboration in 2021 for chlorantraniliprole whereby FMC provides UPL the access to chlorantraniliprole-based products for distribution in select markets prior to patent expiry. In the future, FMC will supply the active ingredient to UPL for use in product formulations developed and marketed by UPL globally.

Please note that PI Industries is supplying 2-amino-5-chloro-N, 3-dimethylbenzamide, which is an intermediary for Rynaxypyr ➤

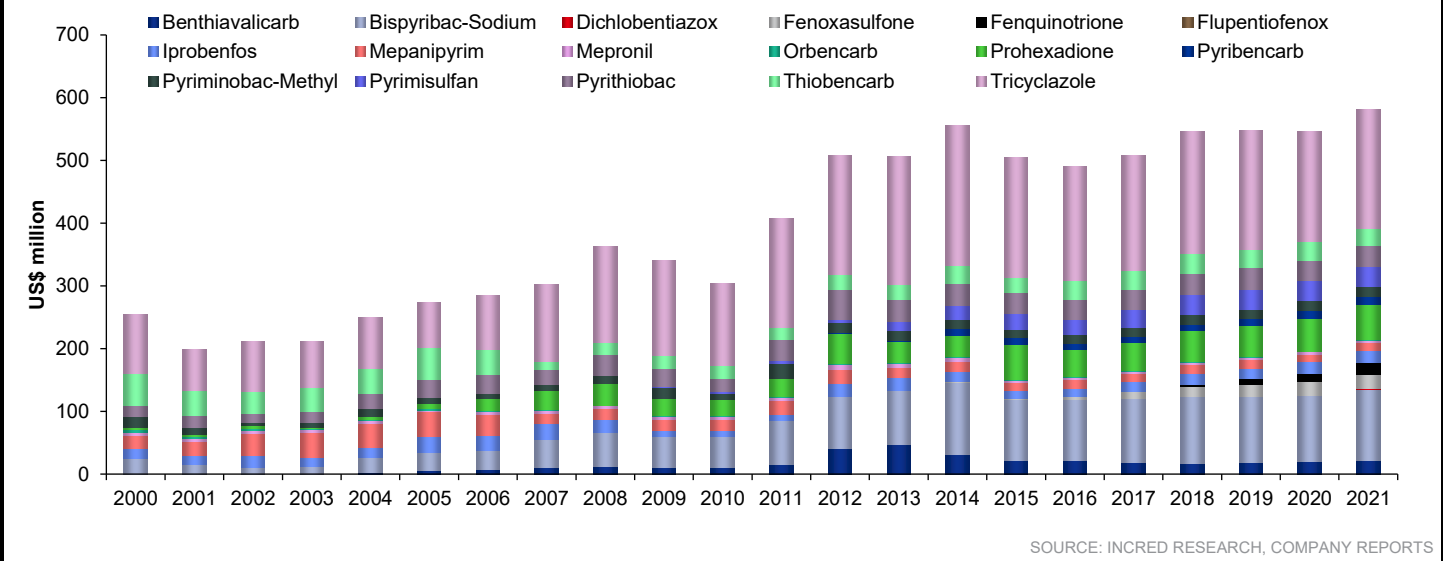
PI Industries is supplying 2-amino-5-chloro-N, 3-dimethylbenzamide which is an intermediary for the Rynaxypyr molecule. PI Industries can supply the same to UPL as well. However, it remains to be seen how PI Industries' sales get impacted when this molecule turns generic and multiple players enter the global market. We are not much worried about the pricing of the intermediary, rather we fear the volume growth of 2-amino-5-chloro-N, 3-dimethylbenzamide. It is entirely possible that once the market becomes fragmented, the volume growth of PI Industries will shrink significantly.

Kumiai's and Sumitomo's new products are limited and we don't know how they will turn up

The new launches of Kumiai are limited and within old products, apart from pyroxa-sulfone, nothing stands out as unique. For new products – it might turn out to be next pyroxa-sulfone, but we don't know that as of now. Kumiai is important for PI Industries as it is the sole manufacturer of pyroxa-sulfone for the company and it participates in its R&D process.

Old products (apart from pyroxa-sulfone) of Kumiai aren't doing that great ➤

Figure 13: Old product sales (apart from pyroxa-sulfone) had peaked in 2014



Even Sumitomo hasn't done any thing great in overall agrochemical sales over the last 10 years ➤

Figure 14: Overall agrochemical sales of Sumitomo are still at the 2014 level...



Figure 15: ...as its largest product, clothianidin's sales have declined

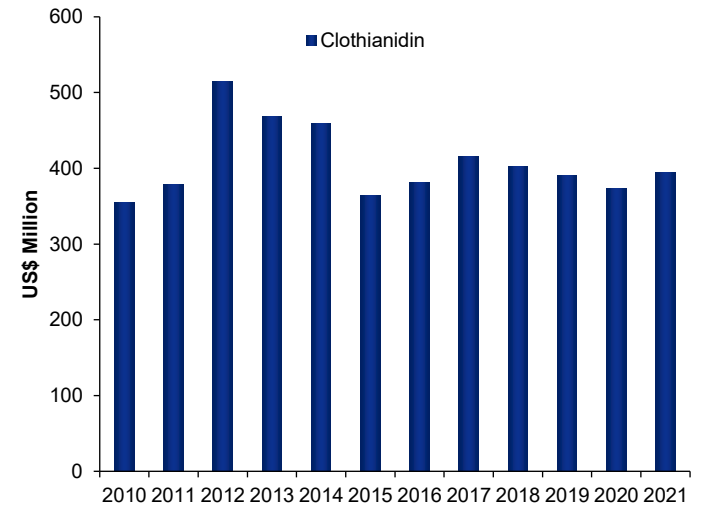
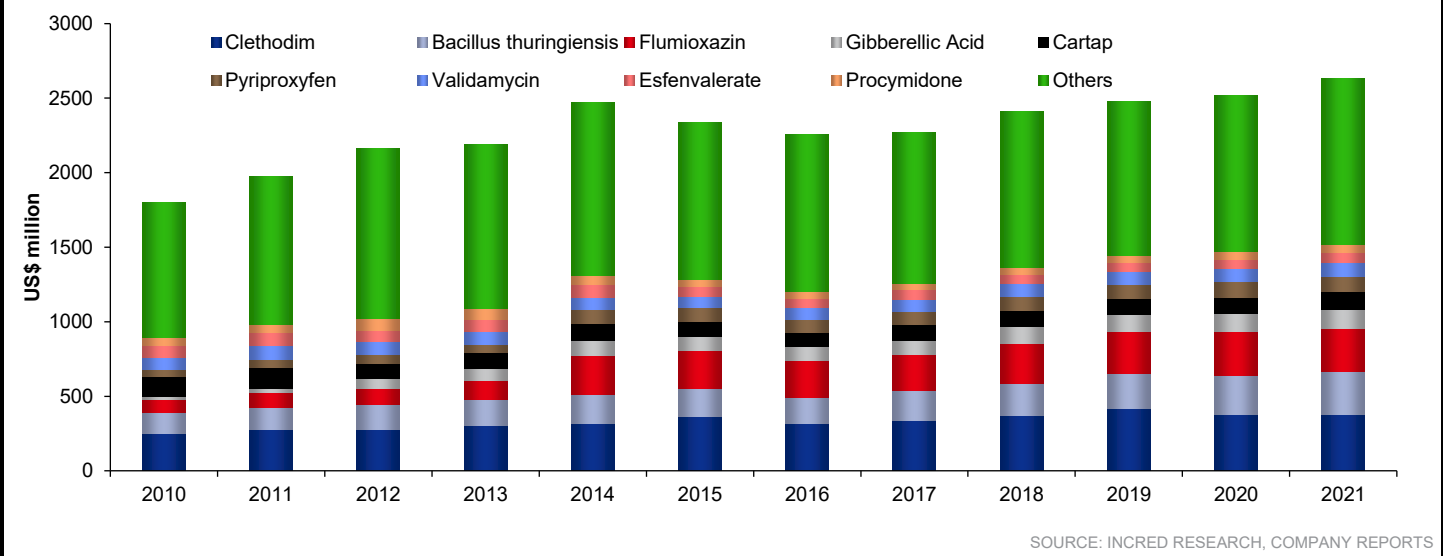


Figure 16: The sales of its other products have also not kept pace



The R&D pipeline of Sumitomo is better than Kumiai, but success is still a question mark ➤

In the last 21 years, apart from clothianidin, Sumitomo has not been able to introduce any new successful product. The company has five new molecules in the pipeline which can be introduced in the coming months.

Figure 17: Five new molecules whose CRAMS contract can go to PI Industries, but its success can be anybody's guess

Name of Molecule	Status	Type	Mode of action	Launch	Patent Expiry	Innovator
Pyridachlometyl	R&D	Fungicide	Other	pre-2025	2028	Sumitomo Chemical
Oxazosulfyl	R&D	Insecticide	Other	2022	2033	Sumitomo Chemical
Metyltetraprole	R&D	Fungicide	Other	pre-2025	2033	Sumitomo Chemical / BASF
Flufenpyr	Commercial	Herbicide	n.a.	2023	n.a.	Sumitomo Chemical/ Valent
Epyrifenacil	R&D	Herbicide	PPO - Other	2025	n.a.	Sumitomo Chemical

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Risk-reward ratio unfavourable - downgrade to REDUCE

While PI Industries can hit a jackpot again in the coming few quarters, its captive client R&D pipeline doesn't look encouraging and at the same time, the best of pyroxasulfone appears to be behind us. Consensus EPS estimates are just too bullish as they are building in stupendous growth from pyroxasulfone in the future as well. We value the stock at 25x FY25F EPS and downgrade our rating on it to REDUCE (from ADD earlier).

Figure 18: PI Industries' valuation leaves nothing on the table - it assumes either Kumiai or Sumitomo will come out with blockbuster products in the near term which can sustain EPS growth soon; please note that Rynaxypyr has severe competition with can lead to sub-par market share for PI Industries



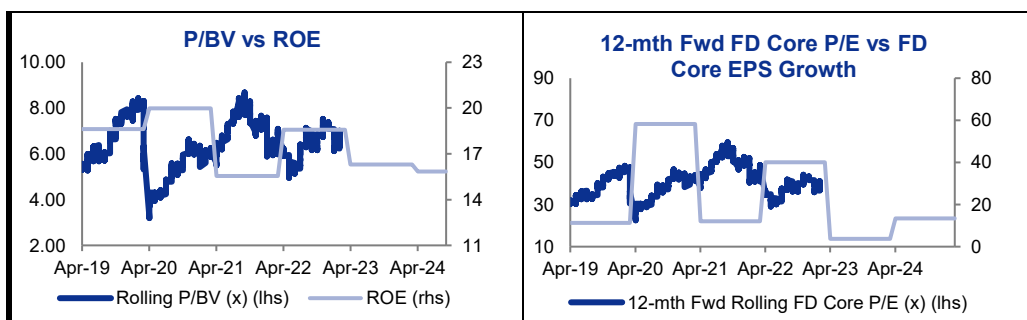
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Please note that during the growth phase, PI Industries can trade at extremely high P/E of 40+ but when growth is not visible, then it gets derated equally bad or stagnates for time correction.

Huge cash on the balance sheet is another risk apart from the risk of a bad acquisition ➤

The extent of investors' belief in PI Industries can be noticed from the fact that it got money for a yet-to-be identified acquisition (around two years ago). The company wants to expand in the pharmaceutical vertical but is unable to find a target company for the same since the last 2.5 years. Bad acquisition risk is also rising.

BY THE NUMBERS



Profit & Loss

(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Total Net Revenues	46,340	53,466	65,307	72,181	79,852
Gross Profit	46,340	53,466	65,307	72,181	79,852
Operating EBITDA	10,692	11,895	16,557	18,835	21,359
Depreciation And Amortisation	(1,748)	(2,018)	(3,044)	(3,850)	(4,101)
Operating EBIT	8,944	9,877	13,512	14,985	17,258
Financial Income/(Expense)	(282)	(128)	(400)	(400)	(400)
Pretax Income/(Loss) from Assoc.	44	36			
Non-Operating Income/(Expense)	1,249	1,014	1,400	1,600	1,500
Profit Before Tax (pre-EI)	9,955	10,799	14,512	16,185	18,358
Exceptional Items					
Pre-tax Profit	9,955	10,799	14,512	16,185	18,358
Taxation	(2,002)	(1,890)	(2,032)	(3,237)	(3,672)
Exceptional Income - post-tax					
Profit After Tax	7,953	8,909	12,481	12,948	14,687
Minority Interests					
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
Net Profit	7,953	8,909	12,481	12,948	14,687
Recurring Net Profit	7,953	8,909	12,481	12,948	14,687
Fully Diluted Recurring Net Profit	7,953	8,909	12,481	12,948	14,687

Cash Flow

(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
EBITDA	10,692	11,895	16,557	18,835	21,359
Cash Flow from Invt. & Assoc.					
Change In Working Capital	(1,303)	(5,276)	(1,940)	(3,218)	(2,017)
(Incr)/Decr in Total Provisions					
Other Non-Cash (Income)/Expense	(1,216)	(160)	(867)	9	10
Other Operating Cashflow	(2,289)	(2,795)	(2,263)	(4,474)	(5,443)
Net Interest (Paid)/Received	(282)	(128)	(400)	(400)	(400)
Tax Paid	1,647	1,751	2,032	3,237	3,672
Cashflow From Operations	7,249	5,287	13,118	13,988	17,180
Capex	(4,375)	(3,362)	(21,300)	(6,000)	(6,000)
Disposals Of FAs/subsidiaries					
Acq. Of Subsidiaries/investments					
Other Investing Cashflow	(19,928)	2,258	1,468		
Cash Flow From Investing	(24,303)	(1,104)	(19,832)	(6,000)	(6,000)
Debt Raised/(repaid)	(2,034)	(930)	(2,678)		
Proceeds From Issue Of Shares	19,789				
Shares Repurchased					
Dividends Paid	(607)	(758)	(477)	(495)	(561)
Preferred Dividends					
Other Financing Cashflow	(244)	(85)	(400)	(400)	(400)
Cash Flow From Financing	16,904	(1,773)	(3,555)	(895)	(961)
Total Cash Generated	(150)	2,410	(10,269)	7,094	10,219
Free Cashflow To Equity	(19,088)	3,253	(9,392)	7,988	11,180
Free Cashflow To Firm	(16,772)	4,311	(6,314)	8,388	11,580

SOURCE: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS...cont'd

Balance Sheet					
(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Total Cash And Equivalents	23,274	22,649	10,912	18,006	28,225
Total Debtors	7,035	8,687	11,289	12,477	13,803
Inventories	10,528	14,234	17,386	19,216	21,259
Total Other Current Assets	4,810	5,960	5,982	6,073	6,174
Total Current Assets	45,647	51,530	45,569	55,772	69,461
Fixed Assets	23,429	24,842	43,098	45,248	47,147
Total Investments	207	448	448	448	448
Intangible Assets	828	828	828	828	828
Total Other Non-Current Assets	265	263	263	263	263
Total Non-current Assets	24,729	26,381	44,637	46,787	48,686
Short-term Debt	701	979			
Current Portion of Long-Term Debt					
Total Creditors	7,960	9,242	11,289	12,477	13,803
Other Current Liabilities	3,909	3,261	5,050	3,753	3,879
Total Current Liabilities	12,570	13,482	16,339	16,230	17,682
Total Long-term Debt	2,574	1,699			
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities	559	571	571	571	571
Total Non-current Liabilities	3,133	2,270	571	571	571
Total Provisions	892	955	88	97	106
Total Liabilities	16,595	16,707	16,998	16,898	18,360
Shareholders Equity	53,424	61,204	73,208	85,662	99,787
Minority Interests					
Total Equity	53,424	61,204	73,208	85,662	99,787

Key Ratios					
	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Revenue Growth	37.7%	15.4%	22.1%	10.5%	10.6%
Operating EBITDA Growth	49.0%	11.3%	39.2%	13.8%	13.4%
Operating EBITDA Margin	23.1%	22.2%	25.4%	26.1%	26.7%
Net Cash Per Share (Rs)	137.95	131.46	71.83	118.53	185.79
BVPS (Rs)	368.51	402.89	481.90	563.88	656.87
Gross Interest Cover	31.72	77.16	33.78	37.46	43.15
Effective Tax Rate	20.1%	17.5%	14.0%	20.0%	20.0%
Net Dividend Payout Ratio	3.8%	3.8%	3.8%	3.8%	3.8%
Accounts Receivables Days	53.17	53.67	55.82	60.09	60.06
Inventory Days	nm	nm	nm	nm	nm
Accounts Payables Days	nm	nm	nm	nm	nm
ROIC (%)	25.5%	23.3%	21.6%	22.1%	24.0%
ROCE (%)	20.1%	16.2%	19.6%	18.9%	18.6%
Return On Average Assets	14.6%	12.2%	15.3%	13.8%	13.7%

SOURCE: INCRED RESEARCH, COMPANY REPORTS

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