PI Industries

Accumulate



Plodded along at first, forging ahead now

ISAGRO's acquisition, a Rs 20.0bn QIP – a prelude to inorganic growth, 22 patent applications, a USD 1.5bn CSM order book, introduction of an intermediate used in COVID-19 drug and commissioning of 2 new multiproduct plants, 2 new products in CSM and 3 new products in the domestic business have been new feathers in the cap for PI Industries during FY20. PI Industries' foray into pharmaceuticals has been a manifestation of their perseverance. PI Industries' FY20 annual report speaks vividly of finding adjacencies beyond agro-chemicals and to be able to find their feet in knowledge chemistries. The company has been consistently investing in R&D (3.5% of sales: Rs 115mn) to build a robust pipeline of novel molecules (closed FY20 with 60 molecules in the pipeline) and endeavours developing next generation, technology and processes. PI Industries has had a penchant for setting foot in advanced chemistries (as mentioned in previous annual reports) like fluorination, phosgenation, carboxylation and that now, makes more sense - the company completed work on setting up facility to undertake fluorination chemical synthesis and initiated process development of a few molecules. The company's vision of CHEMISTRY 4.0, enabled deployment of new analytical tools to improve process efficiencies. We believe that PI Industries is at the cusp of being seen as a diversified chemical company and paving ways into pharmaceuticals, fine chemicals, knowledge chemicals augurs well for shareholders.

Fortifying product profile with new launches:

Industries launched 3 new products in the domestic business. COSKO- an insecticide for rice and sugarcane, FANTOM – fungicide for rice and chili and AWKIRA- herbicide for wheat. NOMINEE GOLD, despite facing fierce competition touched sales of 500 KL and recording a strong growth as the company explored untouched geographies for its sales.

Acquisition of ISAGRO – quintessential synergy:

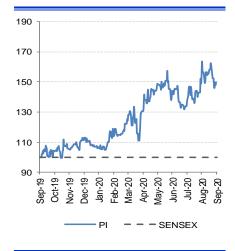
PI Industries acquired a 100% stake in ISAGRO (Asia) for Rs 4.43bn. ISAGRO's 30-acre manufacturing site is adjacent to PI Industries' Panoli formulation plant, and will be refurbished to match PI Industries' margin profile. Domestic distribution business of Isagro will be demerged into Jivagro, a subsidiary of PI and focus on Horticulture and plantations market segments and will have a portfolio and field resource to address needs of farmers in this segment. While the remainder (CSM business) gets merged with PI Industries (the board approved the scheme of amalgamation on 12 Feb-2020).

Outlook and Valuation:

PI Industries' with its healthy CSM order-book coupled with a strong start to the Kharif season, is expected to deliver strong growth in FY21. We expect CSM growth CAGR of 21.3% over FY20-22E and domestic growth CAGR of 21.5% over the same period, we expect ISAGRO to contribute Rs 5.4bn (both CSM+Domestic) in FY22E. PI Industries' exposure to China has been reducing and the company continues to de-risk supply chains (which bodes well considering the current geopolitical tension) and the company continues to focus mostly on in-licensing. We await more details on the company's plans to utilize the QIP proceeds of Rs 20.0bn – which is said to crystalize in the ensuing quarters. We like PI Industries moat in agrochemicals and contract manufacturing and value PI Industries at 45.0x FY22E EPS of Rs 51.5, and revise our target price and rating to Rs 2,317/share, accumulate.

CMP	Rs 1,883
Target / Upside	Rs 2,317 / 23%
BSE Sensex	38,430
NSE Nifty	11,334
Scrip Details	
Equity / FV	Rs 138mn / Rs 1
Market Cap	Rs 260bn
	US\$ 4bn
52-week High/Low	Rs 2,160/Rs 970
Avg. Volume (no)	2,76,892
NSE Symbol	PIIND
Bloomberg Code	PI IN
Shareholding Patte	ern Jun'20(%)
Promoters	51.4
MF/Banks/FIs	19.1
FIIs	11.7
Public / Others	14.4

Company Relative to Sensex



Analyst: Archit Joshi Tel: +9122 40969726 E-mail: architj@dolatcapital.com

Associate: Tejas Sonawane Tel: +9122 40969792 E-mail: tejass@dolatcapital.com

Associate: Yash Shah Tel: +9122 40969751 E-mail: yashs@dolatcapital.com





Custom Synthesis manufacturing business delivered a strong growth:

The company registered a growth of 33% YoY to reach Rs 25.0bn owing to increase in volumes of existing products and 2 new molecules. The CSM business also saw an increase in the total order book and reached USD 1.5bn. The company continues to partner with innovator companies like Kumiai Chemicals, Bayer, BASF etc. The company commissioned 2 new multipurpose plants during the year and started working on building a couple more. The company is expected to fully absorb the imported technology for Mono Methyl Hydrazene synthesis and commission the same in 2QFY21. Mono Methyl Hydrazene is most likely used in pharmaceuticals as an intermediate.

Annual Report Macro View

Particulars							
Key Management Changes	Mr. Mayank Singhal from Managing Director & Chief Executive Officer to Vice Chairman & Managing Director w.e.f. September 09, 2019.						
Board of Directors		Dr. Raman Ramachandran was appointed as a Managing Director & CEO, w.e.f. 01.07.2019. He also held the position of Chairman and Managing Director of BASF India Ltd prior to this.					
Auditors	There has been no change in to M/s Price Waterhouse Charte Company.			es to be the auditor of the			
Pledged Shares	No pledged shares were held o	during the y	ear.				
	Ratings	F'	Y2020	FY2019			
Credit Ratings	Long Term Rating	No	Change	CRISIL AA/Positive			
	Short-term Rating	No	Change	CRISIL A1+			
	Number of securities acquired/disposed/pledged during the year:						
		FY2020		FY2019			
Insider Holdings	Acquired	100,269		211,218			
	Disposed	30	06,002	192,806			
	Pledged	8	3,590	159,542			
	Pledge revoked		-	_			
	Category of Shareholder (%)		FY2020	FY2019			
	Promoter Holding		51.35	51.38			
	Public						
	i) Mutual Funds/Banks		17.94	18.47			
	ii) Indian Bodies Corporate		2.26	4.27			
Key Holders	iii) FPI/FII/FN/NRI/Foreign Bodies/Overseas Bodies Corporate		13.41	14.5			
	iv) Indian Public		9.88	10.06			
	vi) Others (Clearing members, HUF, NBFC, IEPF etc.)	Trust,	5.16	1.32			
	Total		100	100			



FY20 Key operational highlights:

The work on setting up facility to undertake fluorination chemical synthesis has been completed and process development of a few molecules is initiated.

- Derived ~90% CSM revenues from patented molecules, 60%+ revenues in domestic business from in-licensed products.
- FY21 marked pharma foray, successfully developed and scaled up a COVID-19 drug intermediate.
- Closed FY20 with nearly 60 molecules in the R&D pipeline.
- Acquired Isagro Asia, turned around with a 10% growth YoY.
- Signed agreement to in-license 2 new products for farm and PPM segment.
- Launched 2 new products in CSM business and 3 new products in domestic business.
- Initiated commercial-scale business with 3 new customers
- Launch of wheat new herbicide AWKIRA, aggressive positioning of OSHEEN into cotton and COSKO in rice (to fill the gap of Phorate 10G).
- New inquiries grew by over 70%; over 20% of new inquiries in the nonagrichem area
- Interaction with National Laboratories, IITs, CSIR Institutions and Universities, R&D laboratories of various MNCs for upgradation of knowledge and coordinating with them for development of new products and training of scientists
- In-house development and commercialization of Acetic Acid recovery from aqueous stream of DPX manufacturing resulted into significant saving of cost and also reduce the waste generation drastically.





Exhibit 1: Product launches

Brand Name	Product Type	Technical Name	Partner
Exclusive Products			
KEEFUN	Insecticide	Tolfenpyrad 15% EC	Nihon Nohyaku
LEPIDO	Insecticide	Chlorfenapyr 10% SC	NA
OSHEEN	Insecticide	Dinotefuran 20% SG	Mitsui Chemicals, Japan
VIBRANT	Insecticide	Thiocyclam Hydrogen Oxalate 4% GR	Nippon Chemicals
KITAZIN	Fungicide	Kitazin 48% EC	Kumiai Chemicals
BIOVITA - GRANULE	Specialty	Ascophyllum nodosum	NA
FLUTON	Insecticide	Flubendiamide 20% WG	Nichino
NOMINEE GOLD	Herbicide	Bispyribac Sodium 10% SC	Kumiai Chemicals
AWKIRA	Herbicide	Pyroxasulfone WG	Kumiai Chemicals
Co-Marketing Arrangement			
VOLTAGE	Insecticide	Spiromesifen 22.9% SC	NA
LURIT	Fungicide	Dimethomorph 50% WP	NA
CLUTCH	Fungicide	Pyraclostrobin 5%+Metiram 55% WG	BASF
FENDER	Fungicide	Fluxapyroxad 6.25% + Epoxiconazole 6.25% EC	BASF
HEADER	Fungicide	Pyraclostrobin 10% CS	BASF
VISMA	Fungicide	Pyraclostrobin 12.8% + Boscalid 25.2% WG	BASF
BINGO	Herbicide	Imazethapyr 35% + Imazamox 35% WG	NA
HUMESOL	Specialty	Humic Acid 18% Fulvic Acid 1.5%	NA
ELITE	Herbicide	Topramezone 33.6%SC	BASF
SANIPEB	Fungicide	Propineb 70% WP	NA
PIMIX	Herbicide	Metsulfuron methyl 10% + Chlorimuron ethyl 10% WP	NA
MELSA	Herbicide	Pinoxaden 5.1% EC	Sygneta
LEGACEE	Herbicide	Fenoxaprop-p-ethyl 6.9% EC	NA
COSKO	Insecticide	Flubendiamide 20% WG	FMC



Exhibit 2: Product launches

Particulars	Product Type	Technical Name	Partner
Not exclusive to PI (Manufactured by other players in the industry)			
PI BUPRO	Insecticide	Buprofezin 25% SC	-
COLT	Insecticide	Cypermethrin 25% EC	-
DIVAP	Insecticide	Dichlorvos 76%EC	-
COLFOS	Insecticide	Ethion 40% + Cypermethrin 5% EC	-
FOSMITE	Insecticide	Ethion 50% EC	-
JUMBO	Insecticide	Imidacloprid 17.8% SL	-
SNAILKILL	Insecticide	Metaldehyde 2.5% Pellet	-
FORATOX	Insecticide	Phorate 10 % CG	-
ROKET	Insecticide	Profenofos 40%+Cypermethrin 4%EC	-
CARINA	Insecticide	Profenofos 50% EC	-
SIMBAA	Insecticide	Propargite 57% EC	-
CUPRINA	Fungicide	Copper Oxychloride 50%WG	Branded Generic
PERIDO	Fungicide	Propiconazole 25%EC	-
LOGIK	Fungicide	Tricyclozole 75% WP	-
SOLARO	Herbicide	Atrazine 50% WP	-
WICKET	Herbicide	Clodinafop-Propargyl 15% WP	Branded Generic
PI GLYPHO	Herbicide	Glyphosate 41% SL	-
INRO	Herbicide	Imazethapyr 10% SL	-
BUNKER	Herbicide	Pendimethalin 30 EC	Branded Generic
MAXIMA	Insecticide	Thiamethoxam 25% WG	-
OVAL	Insecticide	Acephate 75% SP	Branded Generic
FANTOM	Fungicide	Picoxystrobin + Tricyclazole	



Subsidiary Performance

Company owns 100% stake in PI Life Science Research Ltd., which carries on the business of R&D for developing new products. The Company posted a profit of Rs 17.3 Mn earned on account of various R&D activities for developing new products.

Company owns 100% stake in PI Japan Co. Ltd, a Company based in Japan which takes care of business development activities the company in Japan. The Company posted a net profit of Rs 2.0 Mn during the year ended March 31, 2020 from a total turnover of Rs 57.2 Mn.

Company owns 100% stake in PILL finance. The company recorded sales of Rs 2.5 Mn. The Company posted a profit of Rs 1.1 Mn during the year ended March 31, 2020

Exhibit 3: PI Life Science Research Ltd

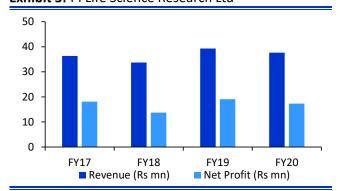
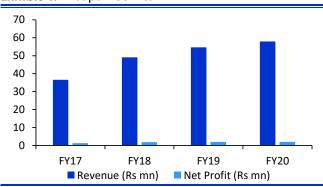


Exhibit 4: PI Japan Co. Ltd



Source: Company, DART

Source: Company, DART

Exhibit 5: PILL Finance and Investments Ltd

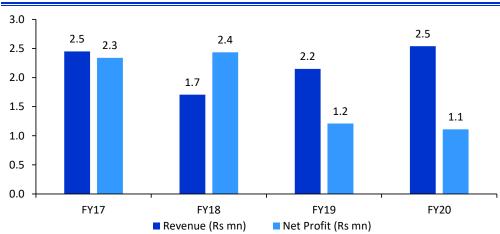




Exhibit 6: Resignations/ Appointments/ Retirement

	Name	Designation	Category	Status	W.E.F.
	Mr. Salil Singhal	Chairman & MD	Executive & Non- Independent	Retired as Chairman & MD and Accepted to be designated as Chairman Emeritus	August 21, 2016
	Mr. Narayan K. Seshadri		Executive & Non- Independent	Appointed as Non- Executive Chairman	October 5, 2016
2017	Mr. Arvind Singhal		Non-Executive & Non-Independent	Appointed as an Additional Director	October 5, 2016
	Dr Venkatrao S. Sohoni	Director	Non-Executive & Non-Independent	Resigned	September 14, 2016
	Mr. Ravi Narain			Appointed as Independent Director (For 3 years)	September 09, 2016
	Ms. Jayashree Satagopan	CFO		Resigned	October 20, 2017
2018	Ms. Jayashree Satagopan Mr. Subhash Anand			Appointed as CFO	October 25, 2017
_010	Dr. T.S. Balganesh		Non-Executive & Independent	Appointed as a Director	May16, 2017
2019	Dr. Raman Ramachandran	MD & CEO		Appointed as a MD & CEO	July 1, 2019

Source: Company, DART

Exhibit 7: Remuneration (Rs mn)

Name	Designation	FY18	% of PAT	FY19	% of PAT	FY20	% of PAT
Dr Raman Ramchandran	Managing Director & CEO					39.6	0.9%
Mr. Mayank Singhal	Managing Director & Vice Chairman	78.6	2.14%	106.4	2.6%	121.3	2.7%
Mr. Rajnish Sarna	Whole Time Director	48.3	1.31%	55.0	1.3%	58.0	1.3%
Ms. Jayashree Satagopan	CFO	14.1	0.38%	NA			
Mr. Subhash Anand	CFO	8.3	0.23%	NA			
Mr. Naresh Kapoor	Company Secretary	6.0	0.16%	NA			





From strength to strength in R&D

The company has been able to identify patentable molecules and processes. We appreciate that developing innovative molecules has been a strength of MNC Agriscience companies like Bayer, BASF, Kumiai chemicals etc. making in-roads into the innovative molecules could prove PI Industries equal to the task.

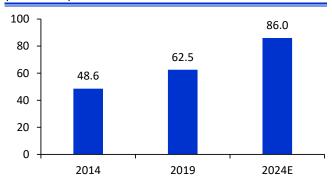
Exhibit 8: R&D expenditure history

Particulars (Rs Mn)	FY15	FY16	FY17	FY18	FY19	FY20
Capital Expenditure	22	603	530	167	50	229
Revenue Expenditure	125	212	346	566	788	920
Total	147	815	877	733	838	1149
Total R&D expenditure as percentage of Revenue from Operations (%)	0.7	3.4	3.7	3.2	3.0	3.5

Source: Company, DART

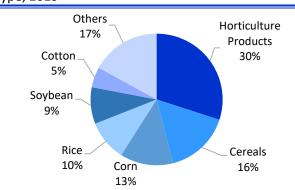
Industry Data Points from FY20 MD&A

Exhibit 9: Global Crop Protection Chemicals Market (In USD bn)



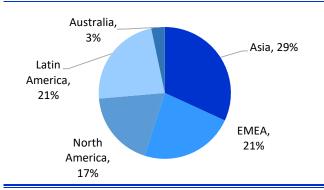
Source: Company, DART

Exhibit 10: Global CPC market segmentation by crop type, 2019



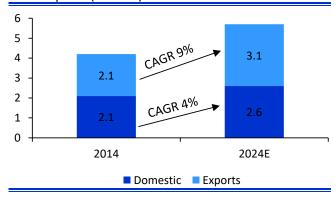
Source: Company, DART

Exhibit 11: Indian CPC market – by export destinations, 2019



Source: Company, DART

Exhibit 12: Indian CPC market by exports & domestic consumption (USD bn)

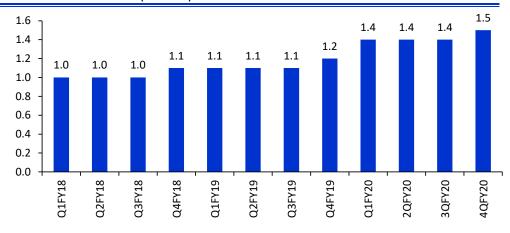




Strong order book and guidance

CSM order book, introduction of an intermediate used in COVID-19 drug and commissioning of 2 new multiproduct plants, 2 new products in CSM and 3 new products in the domestic business have been new feathers in the cap for PI Industries during FY20.

Exhibit 13: Order book (USD bn)





Financials Analysis

Sales growth in FY20 has largely been a function of a 33% growth YoY to Rs 25.0bn in the CSM business, domestic business saw a de-growth 16.4% YoY to Rs 8.01bn. The company grew significantly in Asia (other than India) by 121% YoY to Rs 8.6bn, while growth in North America was rather modest at 8.2% YoY to Rs 11.9bn. ROW too grew at a robust pace at 26% YoY to Rs 1.4bn.

EBITDA growth exceeded sales growth at 24.5% YoY to Rs 7.17bn owing to higher share of value added products in the CSM business.

Exhibit 14: Domestic Agro-Inputs Growth

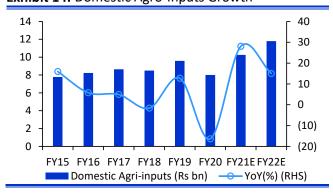


Exhibit 15: CSM Business Growth

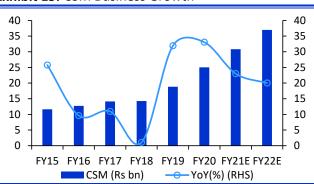


Exhibit 16: Sales (Rs bn) and Sales growth (%)

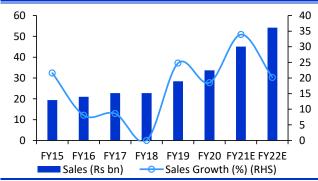
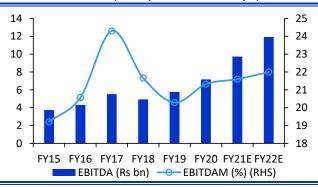
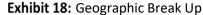


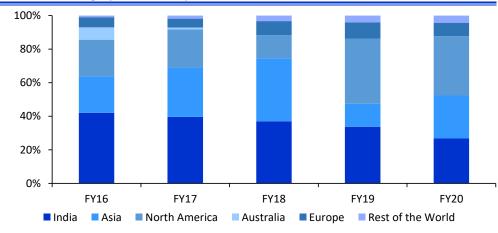
Exhibit 17: EBITDA (Rs bn) and EBITDAM (%)



Source: Company, DART

Source: Company, DART









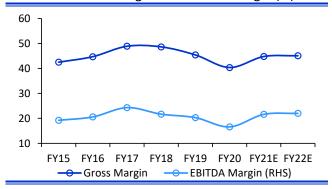
Gross margins remained largely stable at 45.1% in FY20, prices of active ingredients have now started to stabilize in early FY21. EBITDA margin expansion of 100 bps to 21.3% came in due to strong operating leverage.

ROE during the year dropped by 90bps to 18.6, with a drop in asset turns to 1.2x from 1.3x. This is largely due to higher capex incurred in the FY19 and FY20, which is yet to derive full utilization to generate commensurate sales to improve ROE going ahead.

RoCE's too dropped to 16.9% (down 230bps) due to an incremental debt of Rs 4.68bn, RoCEs are expected to drop in FY21 too with an incremental Rs 20.0bn QIP proceeds.

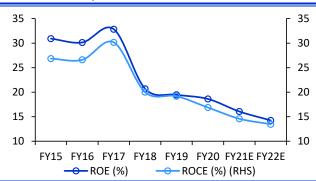
We believe that PI Industries will start deriving full potential of QIP and the recent capex gone by over the next 2-5 years which will improve margin profile after FY22.

Exhibit 19: Gross Margin and EBITDA Margin (%)



Source: DART, Company

Exhibit 20: ROE/ROCE



Source: DART, Company

Exhibit 21: DuPont Analysis

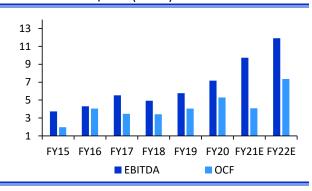
Du Pont Analysis - ROE	FY15	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E
Net margin (%)	12.7	14.9	20.2	16.1	14.4	13.6	13.8	14.4
Asset turnover (x)	2.1	1.7	1.5	1.2	1.3	1.2	1.0	0.9
Leverage factor (x)	1.2	1.2	1.1	1.0	1.0	1.1	1.1	1.1
Return on equity (%)	30.9	30.1	32.8	20.7	19.5	18.6	16.1	14.3





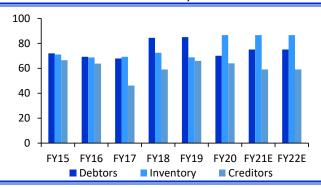
The company's inventory days saw a jump from 69 days to 87 days in FY20, however was offset partly by a meaningful reduction in receivables days to 70 days from 85 days. Payables days remained largely unchanged at 64 days. WC days went up by 5 days to 93 days in FY20.

Exhibit 22: EBITDA/OCF (Rs bn)



Source: DART, Company

Exhibit 23: Cash Conversion Days



Source: DART, Company





Prof	it and	d L	nss	Δc	COL	nt

(Rs Mn)	FY19A	FY20A	FY21E	FY22E
Revenue	28,409	33,665	45,081	54,185
Total Expense	22,645	28,084	35,344	42,264
COGS	15,502	20,071	24,885	29,747
Employees Cost	2,647	3,209	4,057	5,148
Other expenses	4,496	4,804	6,402	7,369
EBIDTA	5,764	5,581	9,738	11,921
Depreciation	930	1,367	1,667	1,877
EBIT	4,834	4,214	8,071	10,044
Interest	50	170	313	243
Other Income	595	489	538	592
Exc. / E.O. items	0	0	0	0
EBT	5,379	4,533	8,295	10,392
Tax	1,277	1,572	2,074	2,598
RPAT	4,102	2,969	6,229	7,802
Minority Interest	0	0	0	0
Profit/Loss share of associates	0	8	8	8
APAT	4,102	2,969	6,229	7,802

Balance Sheet

(Rs Mn)	FY19A	FY20A	FY21E	FY22E
Sources of Funds				
Equity Capital	138	138	152	152
Minority Interest	0	0	0	0
Reserves & Surplus	22,716	26,053	51,234	57,940
Net Worth	22,854	26,191	51,385	58,092
Total Debt	972	6,130	4,833	4,033
Net Deferred Tax Liability	(141)	102	102	102
Total Capital Employed	23,685	32,423	56,320	62,227

Applications of Funds

Net Block	12,141	18,911	22,393	34,516
CWIP	1,544	2,371	3,000	1,000
Investments	172	179	179	179
Current Assets, Loans & Advances	17,550	20,787	42,056	39,313
Inventories	5,357	7,989	10,698	12,859
Receivables	6,618	6,465	9,275	11,148
Cash and Bank Balances	892	1,342	17,092	10,316
Loans and Advances	63	83	83	83
Other Current Assets	3,501	3,583	3,583	3,583
Less: Current Liabilities & Provisions	7,722	9,825	11,308	12,781
Payables	5,130	5,909	7,295	8,768
Other Current Liabilities	2,592	3,916	4,013	4,013
sub total				
Net Current Assets	9,828	10,962	30,748	26,532
Total Assets	23,685	32,423	56,320	62,227

E – Estimates





Important Ratios				
Particulars	FY19A	FY20A	FY21E	FY22E
(A) Margins (%)				
Gross Profit Margin	45.4	40.4	44.8	45.1
EBIDTA Margin	20.3	16.6	21.6	22.0
EBIT Margin	17.0	12.5	17.9	18.5
Tax rate	23.7	34.7	25.0	25.0
Net Profit Margin	14.4	8.8	13.8	14.4
(B) As Percentage of Net Sales (%)		0.0	20.0	
COGS	54.6	59.6	55.2	54.9
Employee	9.3	9.5	9.0	9.5
Other	15.8	14.3	14.2	13.6
	13.8	14.5	14.2	13.0
(C) Measure of Financial Status		0.2	0.1	
Gross Debt / Equity	0.0	0.2	0.1	0.1
Interest Coverage	96.7	24.8	25.8	41.3
Inventory days	69	87	87	87
Debtors days	85	70	75	75
Average Cost of Debt	4.5	4.8	5.7	5.5
Payable days	66	64	59	59
Working Capital days	126	119	249	179
FA T/O	2.3	1.8	2.0	1.6
(D) Measures of Investment				
AEPS (Rs)	29.7	21.5	45.2	56.6
CEPS (Rs)	36.5	31.4	57.3	70.2
DPS (Rs)	4.0	4.0	5.5	6.6
Dividend Payout (%)	13.5	18.6	12.2	11.7
BVPS (Rs)	165.7	189.9	372.6	421.2
RoANW (%)	19.5	12.1	16.1	14.3
RoACE (%)	18.9	11.2	14.7	13.6
RoAIC (%)	23.2	15.6	23.0	22.0
(E) Valuation Ratios				
CMP (Rs)	1883	1883	1883	1883
P/E	63.3	87.5	41.7	33.3
Mcap (Rs Mn)	2,60,120	2,60,120	2,60,120	2,60,120
MCap/ Sales	9.2	7.7	5.8	4.8
EV	2,59,081	2,63,583	2,46,535	2,52,512
EV/Sales	9.1	7.8	5.5	4.7
EV/EBITDA	44.9	47.2	25.3	21.2
P/BV	11.4	9.9	5.1	4.5
Dividend Yield (%)	0.2	0.2	0.3	0.4
(F) Growth Rate (%)				
Revenue	24.8	18.5	33.9	20.2
EBITDA	16.8	(3.2)	74.5	22.4
EBIT	17.8	(12.8)	91.5	24.4
PBT	15.6	(15.7)	83.0	25.3
APAT	11.6	(27.6)	109.8	25.2
EPS	11.6	(27.6)	109.8	25.2
Cook Flour				
Cash Flow				
(Rs Mn)	FY19A	FY20A	FY21E	FY22E
CFO	4,060	5,299	4,077	7,362
CFI	(4,047)	(8,864)	(5,778)	(12,000)
CFF	(904)	4,221	17,452	(2,139)
FCFF	321	(3,665)	(1,701)	(4,638)
Opening Cash	2,902	2,011	2,667	18,417
Closing Cash	2,011	2,667	18,417	11,641
E – Estimates				





DART RATING MATRIX

Total Return Expectation (12 Months)

Buy	> 20%
Accumulate	10 to 20%
Reduce	0 to 10%
Sell	< 0%

Rating and Target Price History



Month	Rating	TP (Rs.)	Price (Rs.)
Oct-19	Reduce	1,470	1,427
Nov-19	Reduce	1,470	1,401
Feb-20	Reduce	1,536	1,545
Mar-20	Accumulate	1,225	1,010
Mar-20	Accumulate	1,225	1,079
Jun-20	Reduce	1,373	1,593
Aug-20	Accumlate	2,315	1,946
Aug-20	Accumlate	2,315	1,940

^{*}Price as on recommendation date

DART Team

Purvag Shah	Managing Director	purvag@dolatcapital.com	+9122 4096 9747
Amit Khurana, CFA	Head of Equities	amit@dolatcapital.com	+9122 4096 9745

CONTACT DETAILS

Equity Sales	Designation	E-mail	Direct Lines
Dinesh Bajaj	VP - Equity Sales	dineshb@dolatcapital.com	+9122 4096 9709
Kapil Yadav	VP - Equity Sales	kapil@dolatcapital.com	+9122 4096 9735
Yomika Agarwal	VP - Equity Sales	yomika@dolatcapital.com	+9122 4096 9772
Jubbin Shah	VP - Derivatives Sales	jubbins@dolatcapital.com	+9122 4096 9779
Ashwani Kandoi	AVP - Equity Sales	ashwanik@dolatcapital.com	+9122 4096 9725
Lekha Nahar	AVP - Equity Sales	lekhan@dolatcapital.com	+9122 4096 9740
Equity Trading	Designation	E-mail	
Equity Trading P. Sridhar	Designation SVP and Head of Sales Trading	E-mail sridhar@dolatcapital.com	+9122 4096 9728
			+9122 4096 9728 +9122 4096 9707
P. Sridhar	SVP and Head of Sales Trading	sridhar@dolatcapital.com	
P. Sridhar Chandrakant Ware	SVP and Head of Sales Trading VP - Sales Trading	sridhar@dolatcapital.com chandrakant@dolatcapital.com	+9122 4096 9707
P. Sridhar Chandrakant Ware Shirish Thakkar	SVP and Head of Sales Trading VP - Sales Trading VP - Head Domestic Derivatives Sales Trading	sridhar@dolatcapital.com chandrakant@dolatcapital.com shirisht@dolatcapital.com	+9122 4096 9707 +9122 4096 9702 +9122 4096 9715

Dolat Capital Market Private Limited.

Sunshine Tower, 28th Floor, Senapati Bapat Marg, Dadar (West), Mumbai 400013



Analyst(s) Certification

The research analyst(s), with respect to each issuer and its securities covered by them in this research report, certify that: All of the views expressed in this research report accurately reflect his or her or their personal views about all of the issuers and their securities; and No part of his or her or their compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

I. Analyst(s) and Associate (S) holding in the Stock(s): (Nil)

II. Disclaimer

This research report has been prepared by Dolat Capital Market Private Limited. to provide information about the company(ies) and sector(s), if any, covered in the report and may be distributed by it and/or its affiliated company(ies) solely for the purpose of information of the select recipient of this report. This report and/or any part thereof, may not be duplicated in any form and/or reproduced or redistributed without the prior written consent of Dolat Capital Market Private Limited. This report has been prepared independent of the companies covered herein. Dolat Capital Market Private Limited. and its affiliated companies are part of a multi-service, integrated investment banking, brokerage and financing group. Dolat Capital Market Private Limited. and/or its affiliated company(ies) might have provided or may provide services in respect of managing offerings of securities, corporate finance, investment banking, mergers & acquisitions, financing or any other advisory services to the company(ies) covered herein. Dolat Capital Market Private Limited. and/or its affiliated company(ies) might have received or may receive compensation from the company(ies) mentioned in this report for rendering any of the above services. Research analysts and sales persons of Dolat Capital Market Private Limited. may provide important inputs to its affiliated company(ies) associated with it. While reasonable care has been taken in the preparation of this report, it does not purport to be a complete description of the securities, markets or developments referred to herein, and Dolat Capital Market Private Limited. does not warrant its accuracy or completeness. Dolat Capital Market Private Limited. may not be in any way responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. This report is provided for information only and is not an investment advice and must not alone be taken as the basis for an investment decision. The investment discussed or views expressed herein may not be suitable for all investors. The user assumes the entire risk of any use made of this information. The information contained herein may be changed without notice and Dolat Capital Market Private Limited, reserves the right to make modifications and alterations to this statement as they may deem fit from time to time. Dolat Capital Market Private Limited. and its affiliated company(ies), their directors and employees may; (a) from time to time, have a long or short position in, and buy or sell the securities of the company(ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions. This report is neither an offer nor solicitation of an offer to buy and/or sell any securities mentioned herein and/or not an official confirmation of any transaction. This report is not directed or intended for distribution to, or use by any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject Dolat Capital Market Private Limited. and/or its affiliated company(ies) to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to a certain category of investors. Persons in whose possession this report may come, are required to inform themselves of and to observe such restrictions.

For U.S. Entity/ persons only: This research report is a product of Dolat Capital Market Private Limited., which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of FINRA or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

This report is intended for distribution by Dolat Capital Market Private Limited. only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a 6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person or entity.

In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors, Dolat Capital Market Private Limited. has entered into an agreement with a U.S. registered broker-dealer Ltd Marco Polo Securities Inc. ("Marco Polo"). Transactions in securities discussed in this research report should be effected through Marco Polo or another U.S. registered broker dealer/Entity as informed by Dolat Capital Market Private Limited. from time to time.

Dolat Capital Market Private Limited.

Corporate Identity Number: U65990DD1993PTC009797

Member: BSE Limited and National Stock Exchange of India Limited.

SEBI Registration No: BSE - INB010710052 & INF010710052, NSE - INB230710031& INF230710031, Research: INH000000685

Registered office: Office No. 141, Centre Point, Somnath, Daman – 396 210, Daman & Diu

Board: +9122 40969700 | Fax: +9122 22651278 | Email: research@dolatcapital.com | www.dolatresearch.com