

PI Industries

BSE SENSEX

31,449

S&P CNX

9,794

Motilal Oswal values your support in the Asiamoney Brokers Poll 2017 for India Research, Sales and Trading team. We [request your ballot](#).



Bloomberg	PI IN
Equity Shares (m)	138
M.Cap.(INRb)/(USDb)	94.8 / 1.5
52-Week Range (INR)	950 / 674
1, 6, 12 Rel. Per (%)	-8/-31/-23
Avg. Val, INRm	136
Free float (%)	48.5

Financials & Valuations (INR b)

Y/E Mar	2017	2018E	2019E
Net Sales	23.8	25.3	28.6
EBITDA	5.5	5.7	6.7
PAT	4.6	4.2	4.9
EPS (INR)	33.4	30.4	35.8
Gr. (%)	46.4	-8.9	17.6
BV/Sh (INR)	118.3	142.0	169.8
RoE (%)	32.8	23.4	22.9
RoCE (%)	31.0	23.0	22.9
P/E (x)	21.4	23.4	19.9
P/BV (x)	6.0	5.0	4.2

Estimate change



TP change



Rating change



CMP: INR713

TP: INR894(+25%)

Buy

Growth to normalize post recovery in global agchem market

- **GST transition disrupts growth:** PI's overall revenue fell 14.4% YoY to INR5,848m (est. of INR7,517m) in 1QFY18. EBITDA margin shrunk 190bp YoY to 22.3% (est. of 25%), led by higher other expenses (+300bp YoY) and employee cost (+210bp). EBITDA declined 21% YoY to INR1,304m. Consequently, adj. PAT fell 21% YoY to INR1,001m (est. of INR1,283m).
- **Soft product uptake; demand to normalize in 2HFY18:** 1QFY18 witnessed deferment in product uptake, despite better monsoon and higher major crop acreages, on account of GST transition. Domestic revenue declined 17% YoY to INR2,848m, while exports fell 12% YoY to INR3,000m. PI, however, expects the global companies to pump up their inventory in 2HFY18 as the global agchem market recovers, normalizing exports. The company continues investing in R&D capabilities to drive new product introductions, keeping itself ready for any normalization in growth momentum.
- **Product pipeline stands strong:** PI is well on track with its new products, as witnessed by the launch of 'ELITE', a maize herbicide, in partnership with BASF. The company also introduced two rice fungicides – 'HEADER' and 'FENDER' – and is expected to launch two more products in FY18. PI is set to leverage its collaborations and JVs to further strengthen its product pipeline, allowing better execution of its order book (stands at USD1b) to garner more share in the market.
- **Valuation and view:** We believe PI is well placed to leverage the turnaround in the global agchem scenario on the back of continued investment in R&D and a strong product pipeline. However, with global demand picking up only in 2HFY18, we cut our earnings estimates by 9%/5% for FY18/FY19. We maintain our **Buy** rating with a TP of INR894, 25x FY19E EPS.

Standalone - Quarterly Earning Model

Y/E March									(INR Million)			
	FY17				FY18				FY17	FY18E	FY18	Var
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			1Q	(%)
Net Sales	6,834	5,440	5,003	6,273	5,848	6,256	5,824	7,233	23,550	25,161	7,517	-22
YoY Change (%)	15.4	14.1	-4.5	3.7	-14.4	15.0	16.4	15.3	7.2	6.8	10.0	
Total Expenditure	5,178	4,719	3,970	4,736	4,544	5,165	4,428	5,316	18,603	19,454	5,638	
EBITDA	1,656	722	1,034	1,537	1,304	1,091	1,395	1,916	4,948	5,707	1,879	-31
Margins (%)	24.2	13.3	20.7	24.5	22.3	17.4	24.0	26.5	21.0	22.7	25.0	
Depreciation	178	181	183	185	197	210	167	220	727	794	195	
Interest	16	13	12	31	14	9	3	5	72	31	12	
Other Income	113	134	133	-21	126	107	99	112	358	444	85	
PBT before EO expense	1,575	661	973	1,299	1,219	979	1,324	1,803	4,507	5,326	1,757	-31
Extra-Ord expense	0	0	0	0	0	0	0	0	0	0	0	
PBT	1,575	661	973	1,299	1,219	979	1,324	1,803	4,507	5,326	1,757	-31
Tax	306	205	33	-53	218	220	298	406	491	1,142	474	
Rate (%)	19.4	31.0	3.4	-4.0	17.9	22.5	22.5	22.5	10.9	21.4	27.0	
Reported PAT	1,269	456	940	1,352	1,001	759	1,026	1,398	4,016	4,184	1,283	-22
Adj PAT	1,269	456	940	1,352	1,001	759	1,026	1,398	4,016	4,184	1,283	-22
YoY Change (%)	47.7	-20.0	32.7	40.8	-21.1	66.4	9.2	3.4	29.7	4.2	1.1	
Margins (%)	18.6	8.4	18.8	21.5	17.1	12.1	17.6	19.3	17.1	16.6	17.1	

E: MOSL Estimates

Niket Shah – Research Analyst (Niket.Shah@MotilalOswal.com); +91 22 6129 1535

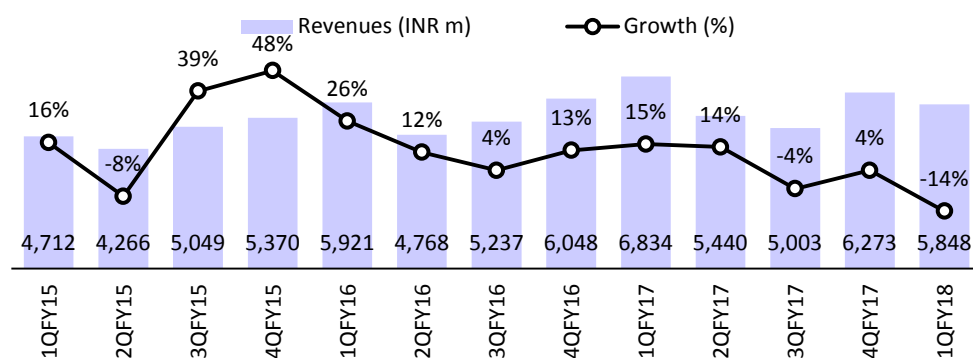
Aksh Vashishth – Research Analyst (Aksh.Vashishth@MotilalOswal.com); +91 22 6129 1553

Investors are advised to refer through important disclosures made at the last page of the Research Report.

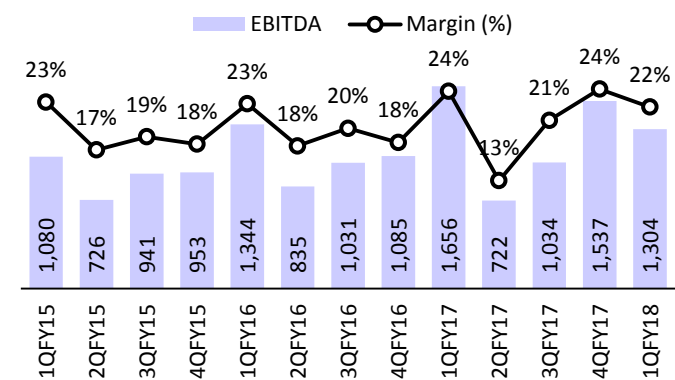
Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Result below estimates; GST transition disrupts growth

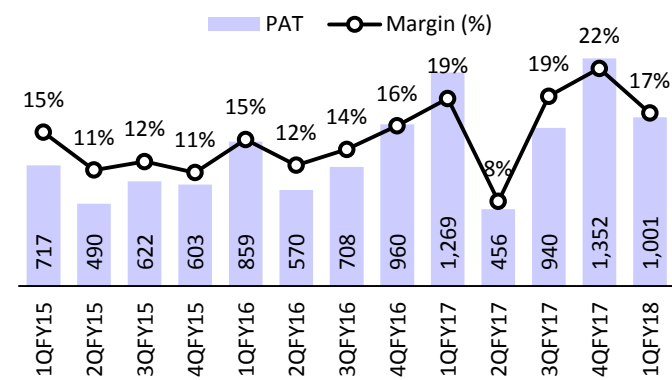
- PI's overall revenue declined 14.4% to INR5,848m (est. INR7,517m) in 1QFY18 on account of moderation in domestic demand due to destocking because of GST transition.
- Domestic revenue witnessed a decline of 17% YoY to INR2,848m, while exports declined 12% YoY to INR3,000m.
- However, the quarter witnessed gross margin expansion of 200bp to 53.3%. EBITDA margin contracted by 190bp to 22.3% (est. of 25%) in 1QFY18, led by a 300bp rise in other expenses and a 210bp rise in employee cost.
- EBITDA during the quarter stood at INR1,304m, down 21% YoY. Consequently, adj. PAT declined 21% YoY to INR1,001m (est. of INR1,283m).

Exhibit 1: Revenue growth trend

Source: Company, MOSL

Exhibit 2: EBITDA trend

Source: Company, MOSL

Exhibit 3: PAT trend

Source: Company, MOSL

Valuation and view

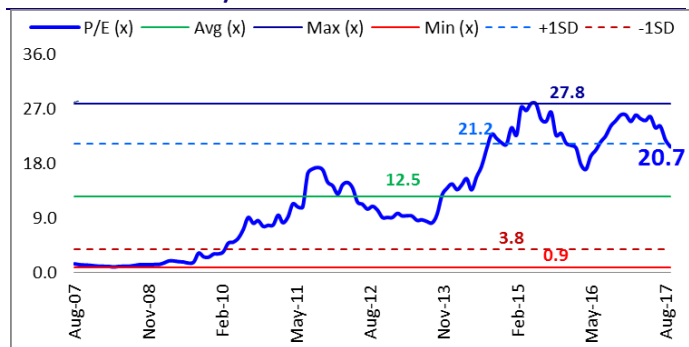
We value PI at 25x FY19E EPS, arriving at a TP of 894 (25% upside), which we believe is justified considering:

- Growth momentum in exports is expected to pick up in 2HFY18, with the recovery in global agrochem market.
- The order book continues to remain strong at USD1b, which is expected to get executed at a faster pace as the industry recovers from destocking woes due to GST.
- PI plans to continue investing in R&D capabilities to drive new product introductions. As witnessed by the introduction of a maize herbicide, two rice

fungicides and the plan to launch two more products in FY18, the company is on track to expand its product portfolio with a view to capture more market share.

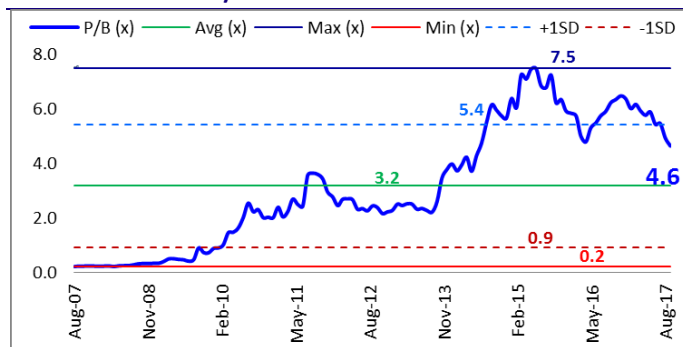
- However, with global demand picking up only in 2HFY18, we cut our earnings estimates by 9%/5% for FY18/FY19. We maintain Buy rating with a target price of INR894, 25x FY19E EPS

Exhibit 4: 15 Year P/E band



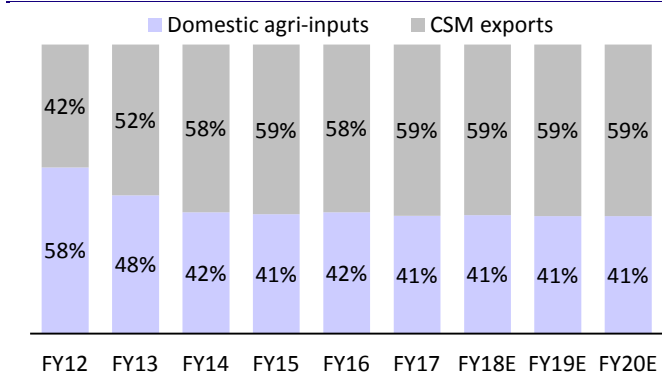
Source: Company, MOSL

Exhibit 5: 15 Year P/B band

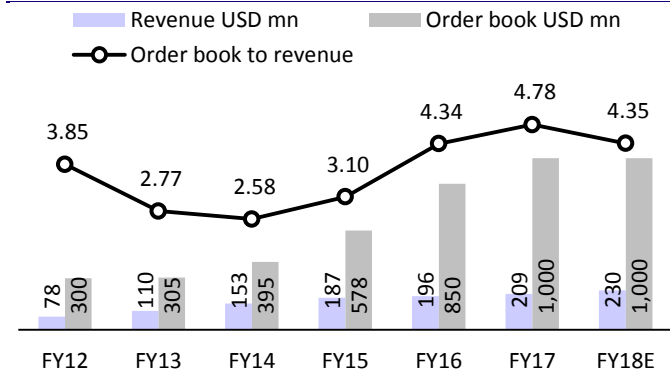


Source: Company, MOSL

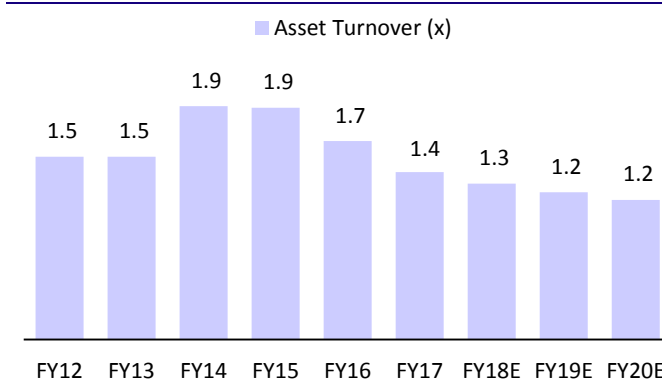
Story in charts

Exhibit 6: High CSM contribution


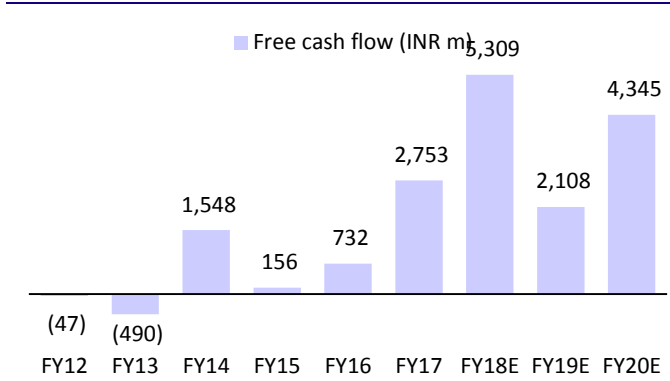
Source: Company, MOSL

Exhibit 7: Order book to revenue ratio in CSM


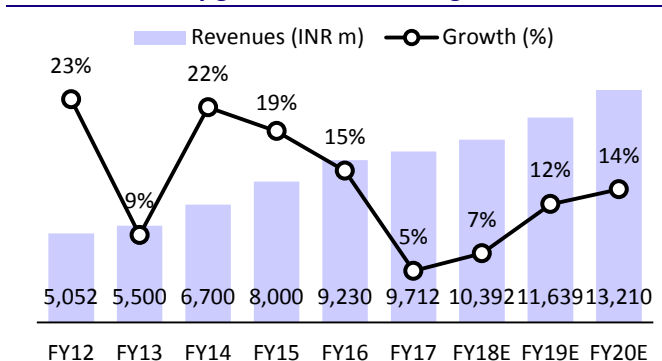
Source: Company, MOSL

Exhibit 8: Consistently strong asset turnover


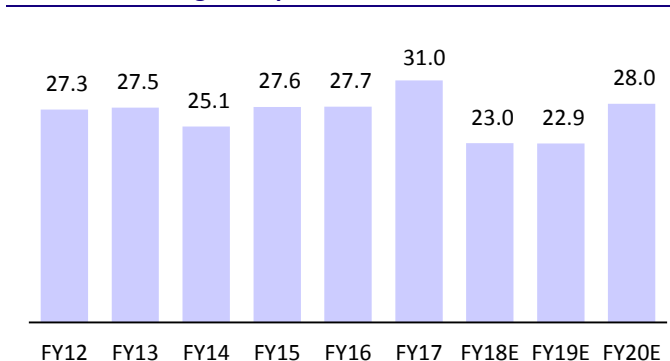
Source: Company, MOSL

Exhibit 9: High cash flow generation


Source: Company, MOSL

Exhibit 10: Steady growth in domestic agro-chem business


Source: Company, MOSL

Exhibit 11: Strong RoCE profile


Source: Company, MOSL

Key assumptions

Exhibit 12: Assumption sheet

	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Revenues (INR m)	15,955	19,390	21,974	23,833	25,350	28,649	32,517
Domestic agro-chemicals	6,700	8,000	9,230	9,712	10,392	11,639	13,210
CSM	9,250	11,390	12,744	14,121	14,958	17,010	19,307
Revenues growth (%)							
Domestic agro-chemicals	22%	19%	15%	5%	7%	12%	14%
CSM	54%	23%	12%	11%	10%	12%	14%
EBITDA (INR m)	2,889	3,723	4,493	5,780	6,130	7,035	7,985
Domestic agro-chemicals	1,039	1,280	1,689	2,137	2,286	2,595	2,946
CSM	1,785	2,392	2,804	3,643	3,844	4,440	5,039
EBITDA margins (%)	18.1%	19.2%	20.4%	24.3%	24.2%	24.6%	24.6%
Domestic agro-chemicals	15.5%	16.0%	18.3%	22.0%	22.0%	22.3%	22.3%
CSM	19.3%	21.0%	22.0%	25.8%	25.7%	26.1%	26.1%

Source: Company, MOSL

Financials and Valuations

Income Statement (Consolidated)					(INR Million)		
Y/E March	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Total Income from Operations	16,812	20,332	21,974	23,833	25,350	28,649	32,517
Change (%)	37.9	20.9	8.1	8.5	6.4	13.0	13.5
EBITDA	2,889	3,727	4,312	5,533	5,712	6,656	7,652
Margin (%)	17.2	18.3	19.6	23.2	22.5	23.2	23.5
Depreciation	316	498	543	730	805	912	1,019
EBIT	2,573	3,229	3,769	4,802	4,907	5,744	6,633
Int. and Finance Charges	118	97	96	72	30	0	0
Other Income	158	420	355	366	421	484	557
PBT bef. EO Exp.	2,613	3,552	4,028	5,096	5,298	6,228	7,190
EO Items	0	0	0	0	0	0	0
PBT after EO Exp.	2,613	3,552	4,028	5,096	5,298	6,228	7,190
Current Tax	779	1,147	909	1,035	1,113	1,308	1,510
Deferred Tax	-46	-54	4	-534	0	0	0
Tax Rate (%)	28.1	30.8	22.7	9.8	21.0	21.0	21.0
Less: Mionrity Interest	0	0	0	0.9	0.9	0.9	0.9
Reported PAT	1,880	2,459	3,115	4,594	4,185	4,920	5,680
Adjusted PAT	1,880	2,459	3,115	4,594	4,185	4,920	5,680
Change (%)	14.0	30.8	26.7	47.5	-8.9	17.6	15.4
Margin (%)	11.2	12.1	14.2	19.3	16.5	17.2	17.5

Balance Sheet (Consolidated)					(INR Million)		
Y/E March	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Equity Share Capital	136	137	137	138	138	138	138
Preference Capital	0	0	0	0	0	0	0
Total Reserves	6,809	8,828	11,572	16,134	19,397	23,226	27,816
Net Worth	6,945	8,965	11,709	16,272	19,534	23,364	27,953
Minority Interest	0	0	0	0	0	0	0
Deferred Liabilities	485	434	353	0	0	0	0
Total Loans	1,223	1,148	1,244	829	0	0	0
Capital Employed	8,653	10,546	13,306	17,101	19,534	23,364	27,953
Gross Block	6,829	7,050	11,008	12,447	13,947	15,947	17,447
Less: Accum. Deprn.	1,563	1,724	2,266	2,997	3,802	4,714	5,732
Net Fixed Assets	5,267	5,326	8,742	9,450	10,145	11,233	11,715
Goodwill on Consolidation	0	0	0	0	0	0	0
Capital WIP	425	1,332	713	773	253	286	325
Total Investments	5	5	3	832	832	832	832
Curr. Assets, Loans&Adv.	7,482	9,668	10,028	11,760	15,669	17,990	23,020
Inventory	3,188	3,782	3,948	4,320	4,237	4,540	5,131
Account Receivables	2,568	3,826	3,978	4,237	4,514	5,102	5,791
Cash and Bank Balance	438	341	560	1,326	4,854	5,871	9,125
Loans and Advances	1,289	1,719	1,543	1,877	2,064	2,477	2,973
Curr. Liability & Prov.	4,574	5,851	6,180	5,913	7,564	7,176	8,137
Account Payables	4,251	5,437	5,984	5,685	6,168	6,810	7,697
Provisions	324	413	196	227	1,395	366	440
Net Current Assets	2,908	3,817	3,849	5,847	8,105	10,814	14,883
Deferred Tax assets	48	65	0	198	198	198	198
Misc Expenditure	0	0	0	0	0	0	0
Appl. of Funds	8,653	10,546	13,307	17,101	19,534	23,364	27,953

Financials and Valuations

Ratios

Y/E March	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Basic (INR)							
EPS	13.8	18.0	22.8	33.4	30.4	35.8	41.3
Cash EPS	16.1	21.6	26.8	38.7	36.3	42.4	48.7
BV/Share	51.0	65.6	85.7	118.3	142.0	169.8	203.1
DPS	2.0	2.5	3.1	4.0	5.5	6.5	6.5
Payout (%)	17.0	16.9	16.6	14.6	22.0	22.2	19.2
Valuation (x)							
P/E	51.6	39.6	31.3	21.4	23.4	19.9	17.3
Cash P/E	44.2	32.9	26.6	18.4	19.7	16.8	14.6
P/BV	14.0	10.9	8.3	6.0	5.0	4.2	3.5
EV/Sales	5.7	4.7	4.3	4.0	3.5	3.1	2.6
EV/EBITDA	33.1	25.6	22.1	17.0	15.7	13.4	11.2
Dividend Yield (%)	0.3	0.4	0.4	0.6	0.8	0.9	0.9
FCF per share	11.4	1.1	5.4	20.0	38.6	15.3	31.6
Return Ratios (%)							
RoE	30.7	30.9	30.1	32.8	23.4	22.9	22.1
RoCE	25.1	27.6	27.7	31.0	23.0	22.9	28.0
RoIC	24.7	26.8	27.9	33.1	27.9	30.3	
Working Capital Ratios							
Asset Turnover (x)	1.9	1.9	1.7	1.4	1.3	1.2	1.2
Inventory (Days)	126	124	124	136	125	120	120
Debtor (Days)	56	69	66	65	65	65	65
Creditor (Days)	169	178	189	178	182	180	180
Working Cap. Turnover (Days)	54	62	55	69	47	63	65
Leverage Ratio (x)							
Current Ratio	1.6	1.7	1.6	2.0	2.1	2.5	2.8
Interest Cover Ratio	22	33	39	67	164	-	947,638
Debt/Equity	0.2	0.1	0.1	0.1	0.0	0.0	0.0

Cash Flow Statement

(INR Million)

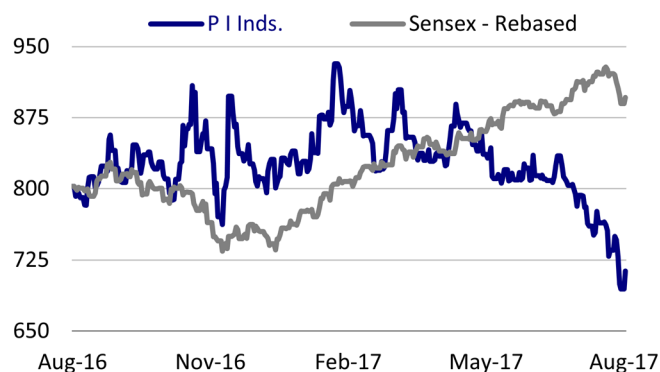
Y/E March	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
OP/(Loss) before Tax	2,613	3,552	4,028	5,096	5,298	6,228	7,190
Depreciation	316	498	543	730	805	912	1,019
Interest & Finance Charges	-20	-126	96	72	30	0	0
Direct Taxes Paid	-743	-1,195	-909	-1,035	-1,113	-1,308	-1,510
(Inc)/Dec in WC	-81	-971	187	-1,232	1,269	-1,691	-815
CF from Operations	2,084	1,759	3,945	3,632	6,290	4,141	5,884
Others	104	83	126	620	0	0	0
CF from Operating incl EO	2,188	1,841	4,071	4,252	6,290	4,141	5,884
(inc)/dec in FA	-640	-1,685	-3,339	-1,499	-980	-2,033	-1,539
Free Cash Flow	1,548	156	732	2,753	5,309	2,108	4,345
(Pur)/Sale of Investments	0	0	0	0	0	0	0
Others	179	274	2	-829	0	0	0
CF from Investments	-461	-1,412	-3,337	-2,328	-980	-2,033	-1,539
Issue of Shares	40	38	0	1	0	0	0
Inc/(Dec) in Debt	-1,097	-153	96	-415	-829	0	0
Interest Paid	-115	-111	-96	-72	-30	0	0
Dividend Paid	-272	-300	-516	-671	-922	-1,090	-1,090
Others	-7	0	0	-1	-1	-1	-1
CF from Fin. Activity	-1,451	-526	-515	-1,158	-1,782	-1,091	-1,091
Inc/Dec of Cash	276	-96	219	766	3,527	1,017	3,254
Opening Balance	161	437	341	560	1,326	4,853	5,871
Closing Balance	437	341	560	1,326	4,853	5,871	9,125

Corporate profile

Company description

Mr. Piyush Singhal founded PI Industries in 1947 as Mewar Oil and General Mills Limited, which was predominantly into edible oils business. A decade later, the company started selling agro-chemicals. The name was changed to PI Industries in 1990s. PI has two business activities: (a) Domestic Agri Inputs offering plant protection products, and specialty plant nutrient products and solutions, (b) Custom Synthesis & Manufacturing (CSM) for contract research and production of agro-chemicals, intermediates and other niche fine chemicals for global innovators.

Exhibit 1: Sensex rebased



Source: MOSL/Bloomberg

Exhibit 2: Shareholding pattern (%)

	Jun-17	Mar-17	Jun-16
Promoter	51.6	51.6	51.7
DII	15.8	13.6	13.0
FII	18.4	21.9	22.1
Others	14.3	13.0	13.2

Note: FII Includes depository receipts

Source: Capitaline

Exhibit 3: Top holders

Holder Name	% Holding
Cartica Capital Ltd.	5.0
ICICI Prudential Balanced Advatage Fund	4.7
SBI Magnum Global Fund	3.9
Axis Mutual Fund Trustee Ltd. A/c Axis Mutual Fund A/c Axis Long Term Equity Fund	3.6
Small Cap World Fund, Inc	1.9

Source: Capitaline

Exhibit 4: Top management

Name	Designation
Narayan K Seshadri	Chairman (Non-Executive)
Salil Singhal	Chairman Emeritus
Mayank Singhal	Managing Director & CEO
Naresh Kapoor	Company Secretary

Exhibit 5: Directors

Name	Name
Pravin K Laheri	Ramani Narula
Rajnish Sarna	Arvind Singhal
Ravi Narain	

*Independent

Source: Capitaline

Exhibit 6: Auditors

Name	Type
K G Goyal & Co	Cost Auditor
KPMG	Internal
R S Bhatia	Secretarial Audit
S S Kothari Mehta & Co	Statutory

Source: Capitaline

Exhibit 7: MOSL forecast v/s consensus

EPS (INR)	MOSL forecast	Consensus forecast	Variation (%)
FY18	30.4	34.2	-11.1
FY19	35.8	39.7	-9.8
FY20	41.3	44.4	-7.0

Source: Bloomberg

NOTES

Disclosures:

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Securities Ltd. (MOSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOSL is a subsidiary company of Motilal Oswal Financial Service Ltd. (MOFSL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOSL is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Metropolitan Stock Exchange Of India Ltd. (MSE) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) & National Securities Depository Limited (NSDL) and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products. Details of associate entities of Motilal Oswal Securities Limited are available on the website at <http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf>

Pending Regulatory Enquiries against Motilal Oswal Securities Limited by SEBI:

SEBI pursuant to a complaint from client Shri C.R. Mohanraj alleging unauthorized trading, issued a letter dated 29th April 2014 to MOSL notifying appointment of an Adjudicating Officer as per SEBI regulations to hold inquiry and adjudge violation of SEBI Regulations; MOSL requested SEBI to provide all documents, records, investigation report relied upon by SEBI which were referred in Show Cause Notice and also sought personal hearing. The matter is currently pending.

MOSL, its associates, Research Analyst or their relative may have any financial interest in the subject company. MOSL and/or its associates and/or Research Analyst may have beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report. MOSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (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.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the last 12 month period. MOSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the last 12 months period ending on the last day of the month immediately preceding the date of publication of this research report, MOSL or any of its associates may have:

- managed or co-managed public offering of securities from subject company of this research report,
- received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- Subject Company may have been a client of MOSL or its associates during twelve months preceding the date of distribution of the research report.

MOSL and its associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the report. MOSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

Terms & Conditions:

This report has been prepared by MOSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOSL will not treat recipients as customers by virtue of their receiving this report.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Disclosure of Interest Statement

- Analyst ownership of the stock

PI Industries

No

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Securities Limited (MOSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts"), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

Motilal Oswal Capital Markets Singapore Pte Limited is acting as an exempt financial advisor under section 23(1)(f) of the Financial Advisers Act (FAA) read with regulation 17(1)(d) of the Financial Advisers Regulations and is a subsidiary of Motilal Oswal Securities Limited in India. This research is distributed in Singapore by Motilal Oswal Capital Markets Singapore Pte Limited and it is only directed in Singapore to accredited investors, as defined in the Financial Advisers Regulations and the Securities and Futures Act (Chapter 289), as amended from time to time. In respect of any matter arising from or in connection with the research you could contact the following representatives of Motilal Oswal Capital Markets Singapore Pte Limited:

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. 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 MOSL 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 certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022-3980 4263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 3080 1000. Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-30801085.

Registration details of group entities:- MOSL: NSE (Cash): INB231041238; NSE (F&O): INF231041238; NSE (CD): INE231041238; BSE (Cash): INB011041257; BSE(F&O): INF011041257; BSE(CD): MSE(Cash): INB261041231; MSE(F&O): INF261041231; MSE(CD): INE261041231; CDSL: IN-DP-16-2015; NSDL: IN-DP-NSDL-152-2000; Research Analyst: INH000000412. AMFI: ARN 17397. Investment Adviser: INA000007100. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670) offers PMS and Mutual Funds products. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) offers wealth management solutions. *Motilal Oswal Securities Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance and IPO products. * Motilal Oswal Commodities Broker Pvt. Ltd. offers Commodities Products. * Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. offers Real Estate products. * Motilal Oswal Private Equity Investment Advisors Pvt. Ltd. offers Private Equity products