

Prince Pipes and Fittings A Star in the Making



Fast growing
in a rapidly
expanding industry



Significant valuation discount to peers



Pan-India distribution & diversified end-use applications

Initiate with BUY and TP of INR 240



Robust cash flow & strong balance sheet





TABLE OF CONTENTS

Introduction	3
Focus charts	4
Company background	7
Investment rationale	9
Key risks	16
Valuation	17
Industry structure	19
Competitive landscape analysis	29
Financial outlook	34
Recent financial performance	38
Management profile	40
Financial tables	43

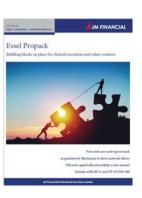


Prince Pipes and Fittings Limited (Prince) is 6th largest player in India in the plastic pipes industry. It has a large product range (c.7200 SKUs) across all four polymers – PVC, CPVC, PPR and HDPE – and end-user applications such as plumbing (c.34% of its revenues), irrigation (c.44%) and SWR (c.21%). It also has the highest fittings mix (value-added product) among peers (c.36% of FY19 revenue). We estimate Prince to post robust 22% EPS CAGR in FY19-22E, though the return profile gets slightly weaker as it is investing in new capacities (from IPO proceeds).

RECENT REPORTS



CROMPTON INITIATION



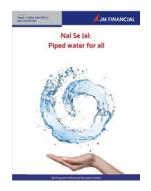
ESSEL PROPACK INITIATION



INDIA SUGAR SECTOR



INDIA BUILDING MATERIALS



INDIA STRATEGY -WATER



PRINCE PIPES AND FITTINGS

A Star in the Making

Prince Pipes and Fittings Limited (Prince) is 6th largest player in India in the plastic pipes industry (market size of INR 295bn). Unlike other building product categories, the plastic pipes industry is a) led by multiple demand drivers such as agriculture (48% of total), plumbing (38%), and Sewerage (18%) and b) undergoing significant consolidation (scaledown by large/small players).

Prince – with its diversified portfolio and pan-India distribution network (similar to the market leader) – would be one of the largest beneficiaries of these structural changes.

Prince has one of the highest fittings mixes (36-37% of revenue) and has been free cash flow positive with robust return ratios since FY15 (RoE>20%) on strong profitability and working capital improvement (from 104 days in FY14 to 55 in FY19). After its IPO, Prince is now cash surplus and is currently investing in new capacities in South and North India to cater to growth.

We initiate coverage with a BUY rating and Mar'21TP of INR 240 (18x FY22E EPS), a potential upside of 34%. We expect Prince to report 22% CAGR in EPS (FY19-22). The stock currently trades at a discount of 67%/50% to Astral/Supreme (FY21PE). We expect it to re-rate in the medium term as concerns abate over a) promoters' pledge (revoked fully after IPO) and b) the impact of the imposition of Anti-dumping Duty (on CPVC resin imports from China and Korea) on profitability. Lower-than-expected volume growth/operating margins are key risks to our call.

Emerging Star in a fast-growing industry: The plastic pipes and fittings industry is expected to record 12-14% CAGR over FY19-24E (highest in the building materials space). Prince is the 6th largest plastic pipes and fittings player in India with a large product range (c.7200 SKUs) across all four polymers – PVC, CPVC, PPR and HDPE – and end-user applications such as plumbing (c.34% of its revenues), irrigation (c.44%) and SWR (c.21%). Prince has the highest fittings mix (value-added product) among peers (c.36% of FY19 revenue).

Consolidation in plastic pipes industry to help organised players:

While some large players are seeing a significant scale-down on account of balance sheet stress, small and medium sized players too are witnessing pressure due to volatile raw material prices and GST compliance (raw material comes largely from organised sources; rising overheads) amid significant liquidity tightness (banks reluctant to lend even for working capital). This vacuum is being effectively captured by leading players, including Prince. Moreover, this results in better pricing power for players. Prince is the best proxy play with 100% exposure to plastic pipes and fittings.

Excellent scale-up in the past and strong balance sheet at present:

Prince has seen a significant scale up from INR 1bn (FY06) to INR 15.7bn (FY19), without any equity dilution. It has delivered one of the highest growth in terms of volume (14% in FY10-19), revenue (18%), EBITDA (17%) and PAT (18%) with average RoE of 19.8% (RoCE/RoIC of 14%, post tax). We estimate Prince to post robust 22% EPS CAGR in FY19-22E, though the return profile gets slightly weaker as it is investing in new capacities (from IPO proceeds).

Recommendation and Price Target	
Current Reco.	BUY
Previous Reco.	NR
Current Price Target (12M)	240
Upside/(Downside)	34.3%
Previous Price Target	0
Change	NA

Key Data – PRINCPIP IN Current Market Price INR179 Market cap (bn) INR19.7/US\$0.3 Free Float 21% Shares in issue (mn) 110.0 Diluted share (mn) 110.0 3-mon avg daily val (mn) INR0.0/US\$0.0 52-week range 184/143 Sensex/Nifty 41,566/12,201 INR/US\$ 71.3		
Market cap (bn) INR19.7/US\$0.3 Free Float 21% Shares in issue (mn) 110.0 Diluted share (mn) 110.0 3-mon avg daily val (mn) INR0.0/US\$0.0 52-week range 184/143 Sensex/Nifty 41,566/12,201	Key Data – PRINCPIP IN	
Free Float 21% Shares in issue (mn) 110.0 Diluted share (mn) 110.0 3-mon avg daily val (mn) INR0.0/US\$0.0 52-week range 184/143 Sensex/Nifty 41,566/12,201	Current Market Price	INR179
Shares in issue (mn) 110.0 Diluted share (mn) 110.0 3-mon avg daily val (mn) INR0.0/US\$0.0 52-week range 184/143 Sensex/Nifty 41,566/12,201	Market cap (bn)	INR19.7/US\$0.3
Diluted share (mn) 110.0 3-mon avg daily val (mn) INR0.0/US\$0.0 52-week range 184/143 Sensex/Nifty 41,566/12,201	Free Float	21%
3-mon avg daily val (mn) INR0.0/US\$0.0 52-week range 184/143 Sensex/Nifty 41,566/12,201	Shares in issue (mn)	110.0
52-week range 184/143 Sensex/Nifty 41,566/12,201	Diluted share (mn)	110.0
Sensex/Nifty 41,566/12,201	3-mon avg daily val (mn)	INR0.0/US\$0.0
	52-week range	184/143
INR/US\$ 71.3	Sensex/Nifty	41,566/12,201
	INR/US\$	71.3

Price Performance			
%	1M	6M	12M
Absolute	8.1	NA	NA
Relative*	8.2	NA	NA
Relative*	8.2	NA	

*	То	the	BSE	Sensex

Financial Summary					(INR mn)
Y/E March	FY18A	FY19A	FY20E	FY21E	FY22E
Net Sales	13,150	15,719	17,377	19,481	21,819
Sales Growth (%)	5.5	19.5	10.6	12.1	12.0
EBITDA	1,633	1,841	2,310	2,343	2,671
EBITDA Margin (%)	12.4	11.7	13.3	12.0	12.2
Adjusted Net Profit	728	821	1,193	1,256	1,475
Diluted EPS (INR)	8.1	9.1	10.8	11.4	13.4
Diluted EPS Growth (%)	-51.0	12.9	18.8	5.3	17.4
ROIC (%)	15.7	15.4	18.3	15.2	16.0
ROE (%)	26.0	22.9	19.0	13.9	14.6
P/E (x)	22.1	19.6	16.5	15.7	13.4
P/B (x)	5.1	4.0	2.3	2.1	1.8
EV/EBITDA (x)	14.2	12.2	8.3	8.2	6.8
Dividend Yield (%)	0.0	0.0	1.2	1.4	1.6

Source: Company data, JM Financial. Note: Valuations as of 12/02/2020

 $\label{local_JMFR} \textit{JMFR} < \!\! \mathsf{GO} \!\! > \!\! , \\ \textit{Thomson Publisher \& Reuters S\&P Capital IQ and FactSet} \\$

You can also access our portal: www.jmflresearch.com

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

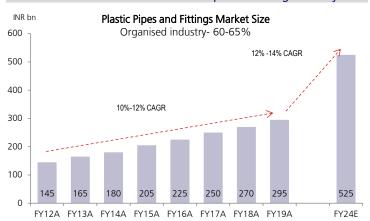
Achal L	.ohade
achal.lc	hade@jmfl.con
Tel: (91	22) 6630 3081

Shrenik Bachhawat shrenik.bachhawat@jmfl.com Tel: (91 22) 6630 3074 Koundinya Nimmagadda koundinya.nimmagadda@jmfl.com Tel: (91 22) 6630 3574

Focus Charts

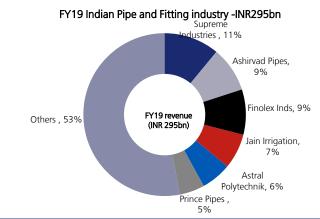
INR bn	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY10-19	FY10-15	FY15-19
Pipes Volume (000 tonnes)													
Prince Pipes	39	53	56	70	90	82	88	96	110	129	14%	16%	12%
Supreme	115	130	152	176	188	204	163	235	256	280	10%	12%	8%
Finolex	113	138	150	175	177	186	207	208	260	259	10%	10%	9%
Astral	19	28	39	49	60	70	78	89	104	123	23%	29%	15%
Pipes Revenue													
Prince Pipes	3.4	4.3	5.3	8.0	10.1	9.6	10.1	12.5	13.2	15.7	18%	23%	13%
Supreme	8.0	10.4	13.2	16.9	20.6	21.1	15.9	24.5	27.3	31.7	16%	21%	11%
Ashirvad					11.3	14.0	16.1	19.9	24.2	26.7			18%
Finolex	8.3	9.1	10.9	13.8	15.6	16.9	17.8	22.2	23.3	25.7	13%	15%	11%
Astral	2.9	4.1	5.8	8.2	10.7	12.1	12.4	14.2	15.4	18.5	23%	33%	11%
Pipes EBITDA													
Prince Pipes	0.4	0.4	0.5	1.0	1.0	0.8	1.0	1.6	1.6	1.9	17%	13%	23%
Supreme	1.0	1.2	1.9	2.7	3.1	2.8	2.3	4.0	3.9	4.0	17%	23%	9%
Ashirvad					1.9	2.2	2.4	4.0	4.9	5.0			23%
Finolex	0.9	0.8	0.7	0.9	1.5	1.6	2.0	2.0	1.7	2.2	10%	11%	9%
Astral	0.4	0.5	0.8	1.1	1.5	1.5	1.7	2.1	2.4	3.0	25%	29%	19%
Pipes EBITDA margin													
Prince Pipes	12.9%	9.6%	9.5%	12.0%	10.2%	8.5%	9.9%	13.0%	12.4%	11.8%			
Supreme	12.5%	11.5%	14.3%	16.1%	15.0%	13.3%	14.3%	16.3%	14.3%	12.8%			
Ashirvad					17.1%	15.8%	15.0%	20.2%	20.4%	18.8%			
Finolex	11.1%	9.2%	6.5%	6.3%	9.8%	9.2%	11.3%	9.2%	7.2%	8.6%			
Astral	14.5%	13.0%	14.1%	13.6%	14.0%	12.4%	13.4%	14.6%	15.4%	16.4%			
Pipe EBITDA (INR/kg)													
Prince Pipes	11.3	7.8	9.1	13.8	11.4	10.0	11.3	16.9	14.9	14.4	3%	-2%	10%
Supreme	8.7	9.2	12.5	15.6	16.4	13.8	13.9	17.0	15.2	14.5	6%	10%	1%
Finolex	8.1	6.1	4.7	5.0	8.6	8.4	9.7	9.8	6.4	8.6	1%	1%	1%
Astral	21.6	18.8	21.1	22.6	25.0	21.4	21.3	23.1	22.8	24.7	2%	0%	4%
Adj.PAT													
Prince Pipes	0.2	0.1	0.1	0.4	0.3	0.2	0.3	0.7	0.7	0.8	18%	-3%	52%
Supreme	1.4	1.7	2.4	2.7	2.8	3.2	2.2	3.8	4.1	3.8	11%	17%	5%
Finolex	1.3	0.8	0.9	2.1	2.2	0.6	2.4	3.5	3.0	3.7	12%	-14%	56%
Astral	0.3	0.3	0.4	0.6	0.8	0.8	1.1	1.5	1.8	2.0	25%	22%	28%
RoCE (Pre-tax)													
Prince Pipes						11.6%	15.1%	25.3%	21.1%	21.4%			
Supreme						38.8%	34.5%	41.2%	40.4%	30.0%			
Finolex						33.3%	37.2%	33.7%	22.2%	23.7%			
Astral						33.1%	16.3%	18.2%	19.4%	20.6%			

Exhibit 2. Market size of India's Plastic Pipes and Fittings industry



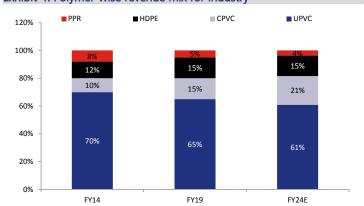
Source: Company, JM Financial

Exhibit 3. Market share of Plastic Pipes and Fittings industry players



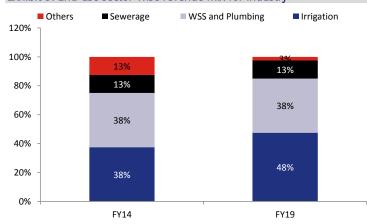
Source: Company, JM Financial

Exhibit 4. Polymer-wise revenue mix for industry



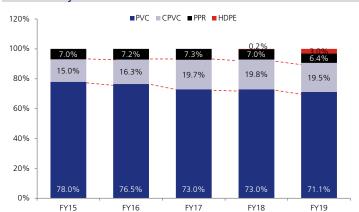
Source: Company, JM Financial

Exhibit 5. End-use sector-wise revenue mix for industry



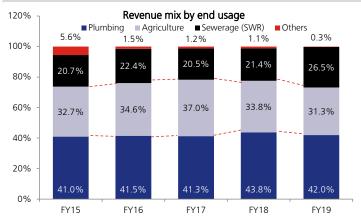
Source: Company, JM Financial

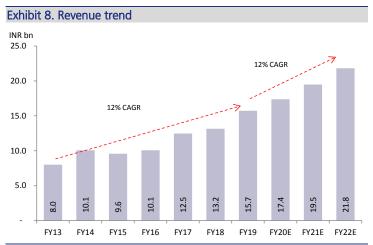
Exhibit 6. Polymer-wise revenue mix for Prince



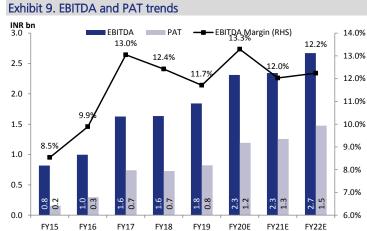
Source: Company, JM Financial

Exhibit 7. End-use sector-wise revenue mix for Prince



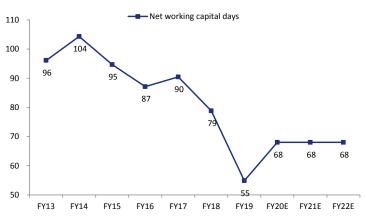


Source: Company, JM Financial

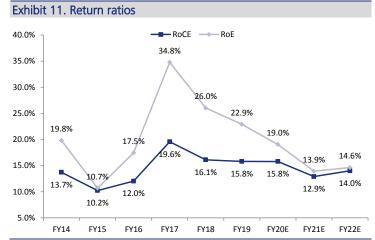


Source: Company, JM Financial

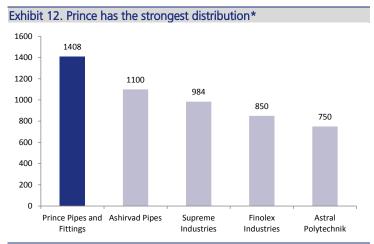




Source: Company, JM Financial



Source: Company, JM Financial



Source: Company, JM Financial *as on 30th Sept 2019

Exhibit 13. Polymer profile of top pipe players

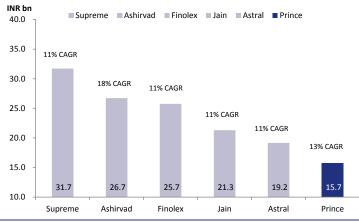
One of the only three companies in India to manufacture products across major polymers

Company	UPVC	CPVC	HDPE	PPR	
Prince Pipes	✓	✓	✓	✓	
Supreme Inds	✓	✓	✓	✓	
Finolex Inds	✓	✓	*	×	
Astral Poly	✓	✓	✓	×	
Jain Irrigation	✓	✓	✓	✓	
Ashirvad Pipes	✓	✓	×	*	

Company background

Prince Pipes is promoted by Mr. Jayant Chheda, who ventured into the PVC products business in 1982 and started his 1st pipe manufacturing unit in Mumbai in 1987. Currently, Prince is ranked among the top 6 players in India (in a highly fragmented pipes industry) with a market share of approximately 5% in FY19; the top 6 players collectively have a market share of 49%. Prince has a strong legacy of over 3 decades in the pipes segment and over 2 decades in the fittings segment. It markets products under two brand names: 1) Prince Piping Systems and 2) Trubore, which has a long history in the Tamil Nadu market and was acquired by Prince in October 2012. Both enjoy strong brand recall and are among the preferred consumer brands across the country.





Source: Company, JM Financial; Revenue CAGR is for FY15-19

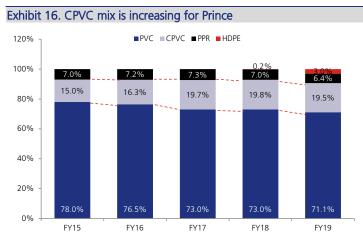
Prince is recognised as one of the leading polymer pipe and fittings manufacturers in India in terms of number of distributors. Its current product range spans 7200 SKUs and is positioned as an end-to-end polymer piping systems solution provider. It has pan-India presence for Prince Piping Systems products, selling to distributors (c.1150), who then re-sell them to wholesalers, retailers and consumers. Trubore products are sold in South India, primarily in Tamil Nadu. Prince sells Trubore products directly to wholesalers and retailers (c.250).

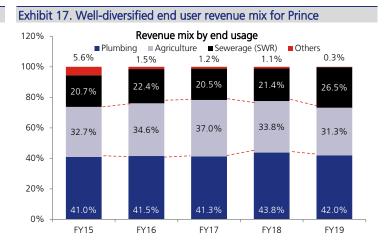
Exhibit	Exhibit 15. Timeline						
Year	Event						
1982	Mr.Jayant Chheda ventured in PVC Products business						
1987	Incorporated as a Private Limited Company						
1995	Set up a large scale plastic injection moulding and extrusion unit in Athal						
2000	New plant set up at Dadra for pipe manufacturing						
2005	Achieved INR 1bn turnover						
2008	New plant set up at Haridwar for pipes and fittings manufacturing						
2012	Acquisition of Trubore Piping System brand and 2 plants in Chennai and Kolhapur						
2014	Crossed turnover of INR 10bn						
2018	Appointed Mr. Akshay Kumar as Brand Ambassador and rolled out print and ad film campaign across diverse mediums						
2019	New plant set up at Jaipur for pipe manufacturing						

Source: Company, JM Financial

Prince has 6 manufacturing facilities: Athal (Union Territory of Dadra and Nagar Haveli), Dadra (Union Territory of Dadra and Nagar Haveli), Haridwar (Uttarakhand); Chennai (Tamil Nadu), Kolhapur (Maharashtra) and Jobner (Rajasthan). Its installed capacity totals 241,211 tonnes p.a. as at 31Oct'19. It also uses five contract manufacturers, of which two are in Aurangabad (Maharashtra), one is in Guntur (Andhra Pradesh), one is in Balasore (Odisha) and one is in Hajipur (Bihar). The multi-location facilities have assisted

Prince in market penetration and helped it establish a strong presence in North, West and South India. Prince plans to set up a new manufacturing plant in Sangareddy (Telangana) (total estimated installed capacity: 51,943 tonnes p.a.) to further expand its geographical presence.





Investment Rationale

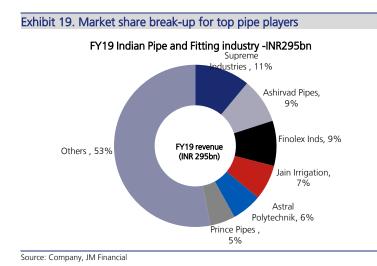
The pipes industry is probably the best category in the building materials space: In the past five fiscal years (FY14-19), the plastic piping industry has grown faster than the GDP due to a) robust growth in end-use sector investments such as irrigation and urban infrastructure and b) increased awareness, along with adoption and substitution of metal pipes with plastic pipes due to lower price, higher longevity, relative resistance to leakage and easy installation. Going forward, the industry is estimated to post a 12-14% CAGR over FY19-24 (highest growth rate in the building materials space), reaching INR 500bn-550bn. This would largely be driven by a) government focus on irrigation (increasing area under irrigation), WSS projects (focus on urban infrastructure) and real estate sector (implemented RERA and Housing for All by 2022); b) an expected increase in India's per capita plastic consumption (from the current 11kg; global average of 30kg); and c) an increase in the application of CPVC (which are expensive and placed high on qualitative parameters vs. UPVC pipes).

In India's plastic pipes industry, the market share of organised players increased from 50-55% in FY10 to 60-65% in FY19 and is expected to continue to rise in future. It is one of the few industries where the market share shift from unorganised to organised is evident.

Exhibit 18. Plastic Pipes industry is expected to record the highest CAGR over FY19-24E								
Particulars	Plastic Pipes	Paints	Ceramic tiles and sanitaryware	Plywood and Laminates				
FY19 industry size (INR bn)	290-300	470	320-325	280-300				
Share of organised segment	60-65%	70-75%	~50%	Plywood – 20- 25%, Laminates – 40%				
CAGR FY14-19	10-12%	8-10%	3%	6-8%				
CAGR FY19-24E	12-14%	10-12%	5-6%	8-10%				

Source: Industry, JM Financial

• 6th largest player with a comprehensive product portfolio (polymers/applications): Prince is the 6th largest plastic pipe and fittings player in India with an enormous product range (c.7,200 SKUs) across all four polymers, namely, PVC, CPVC, PPR and HDPE and across end-user applications such as plumbing (c.34% of FY19 revenue), irrigation (c.44% of FY19 revenue) and SWR (c.21% of FY19 revenue). It has a strong legacy of more than three decades in the pipes segment and more than two decades in the fittings segment.



Source: Company, JM Financial

multilate on the house and the left and a face

One of the only three companies in India to manufacture products across major polymers									
Company	UPVC	CPVC	HDPE	PPR					
Prince Pipes	✓	✓	✓	✓					
Supreme Inds	✓	✓	✓	✓					
Finolex Inds	✓	✓	×	×					
Astral Poly	✓	✓	✓	×					
Jain Irrigation	✓	✓	✓	✓					
Ashirvad Pipes	✓	✓	×	×					

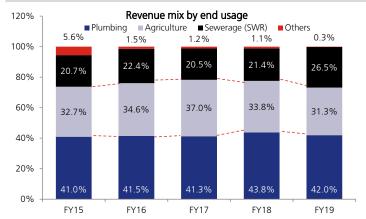
12 February 2020 Prince Pipes and Fittings

Exhibit 21. Polymer wise revenue mix for Prince 120% ■PVC ■CPVC ■PPR ■HDPE 100% 7.0% 6.4% 15.0% 16.3% 19.7% 19.8% 19.5% 80% 60% 40% 20%

73.0%

FY17

Exhibit 22. End-use sector-wise revenue mix for Prince



Source: Company, JM Financial

FY15

FY16

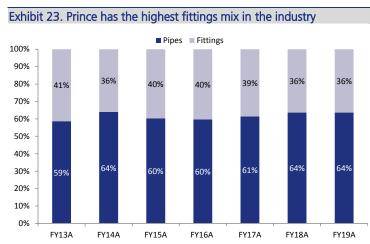
0%

Source: Company, JM Financial

One of the best fittings mix in the industry (% of revenue): The fittings segment typically earns higher margins due to the specialised nature and precision required vis-à-vis the pipes segment. Consequently, several branded players have been intensifying their focus to expand their fittings capacity to cater to the high demand in this segment. Prince's strong brand name has enabled it to increase penetration in the fittings segment. Prince has one of the highest fittings mixes among peers (c.36% of FY19 revenue).

FY18

FY19



INR bn 7.0 ¬ —■— Growth YoY (RHS) Fittings revenue 25% 20% 6.0 19% 20% 10% CAGR 5.0 15% 4.0 10% 10% 3.0 5%

FY16A

4.8

FY17A

FY184

Exhibit 24. Healthy growth in fittings revenue

Source: Company, JM Financial

FY13A Source: Company, JM Financial

3.3

3.6

FY14/

3.8

FY15A

2.0

Strategically located manufacturing facilities helps freight cost reduction: Transportation cost is an important factor for pipes due to their size. Therefore, it establishes a competitive advantage when manufacturing pipes as close as possible to the ultimate consumer. Prince has established six manufacturing facilities in Athal (Union Territory of Dadra and Nagar Haveli), Dadra (Union Territory of Dadra and Nagar Haveli), Haridwar (Uttarakhand); Chennai (Tamil Nadu), Kolhapur (Maharashtra) and Jobner (Rajasthan). It also uses five contract manufacturers, of which two are in Aurangabad (Maharashtra), one is in Guntur (Andhra Pradesh), one is in Balasore (Odisha) and one is in Hajipur (Bihar). The multi-location facilities have assisted Prince in market penetration and developing a strong presence in North, West and South India. Prince plans to set up a new manufacturing plant in Sangareddy (Telangana) (total estimated installed capacity: 51,943 tonnes p.a.) by end-FY21 to further improve its geographical presence and reduce freight costs. The Telangana plant would give Prince a competitive advantage as currently this market is being catered to by Athal and Haridwar plants, which cause higher lead time (4-15 days) and costs.

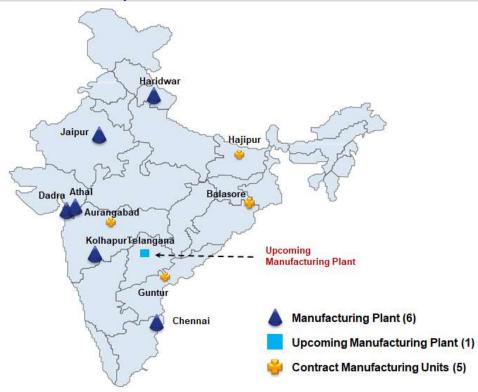
0%

-5%

5.7

FY19A

Exhibit 25. Diversified presence across the country



Source: Company, JM Financial

Source: Company, JM Financial

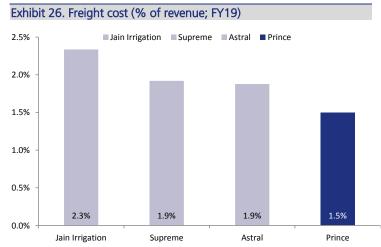


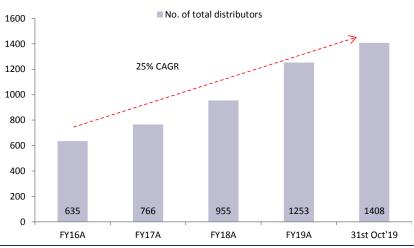
Exhibit 27. Plant locations for leading players

	Ma	nufacturing footprin	t of leading organised players
	Company	Regions	Location of plants
	Prince Pipes	West, South and North	Maharashtra, Tamil Nadu, Uttarakhand, Dadra and Nagar Haveli, Rajasthan
	Supreme Inds	Pan-India	Maharashtra, Madhya Pradesh, West Bengal, Uttar Pradesh
	Finolex Inds	West	Maharashtra and Gujarat
	Astral Poly	West and South	Gujarat, Tamil Nadu, Rajasthan, Maharashtra, Uttarakhand
	Jain Irrigation	West and South	Maharashtra, Gujarat, Tamil Nadu, Rajasthan, Andhra Pradesh
7	Ashirvad Pipes	South	Karnataka and Rajasthan

Source: Company, JM Financial

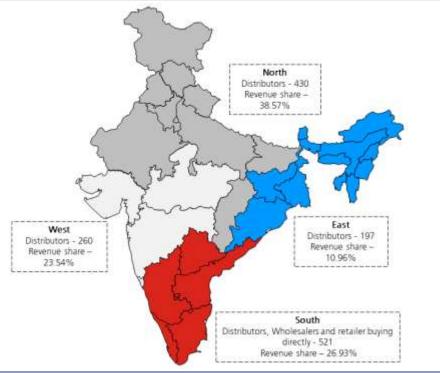
■ Large pan-India distribution and growing: Prince has a pan-India network of distributors for its Prince Piping Systems products and a network of wholesalers and retailers for its Trubore brand products in South India. One of the major factors contributing to Prince's success is the presence of its brands in regional markets and across India. The company plans to increase sales of Prince Piping Systems products by increasing the number of retailers who stock its products (typically served through distributors). Prince plans to not only expand sales into cities where its products are not currently sold but also consolidate its position in areas where it already has a strong presence.

Exhibit 28. Steady increase in distribution strength



Source: Company, JM Financial

Exhibit 29. Pan-India distribution footprint for Prince (Revenue mix FY19 basis)



Source: Company, JM Financial

• Consolidation in Plastic Pipes industry to help organised players such as Prince: Due to the sharp increase in PVC resin prices, financial crisis in NBFC sector and slow demand environment in FY19, various mid-sized plastic pipe companies faced immense pressure on the working capital front. Non-availability of working capital lines from banks/NBFCs at the required time led to stretched working capital days, forcing mid-sized players to scale down operations. Our channel checks with various dealers/distributors suggest that supply from various other mid-sized plastic pipe players has been severely impacted since last year. The supply vacuum created by the downfall of the mid-sized players is being effectively tapped by the large players including Prince Pipes which will help in increasing the market share of large organised players (top 6 players held c.49% share in FY19). While some of the large players are seeing a significant scale-down on account of balance sheet stress, small and medium size players too are witnessing pressure due to volatile RM prices, GST compliance (raw material comes largely from organised sources;

rising overheads) amid significant liquidity tightness (banks are reluctant to lend even for working capital). This vacuum is adequately being captured by leading players, including Prince.

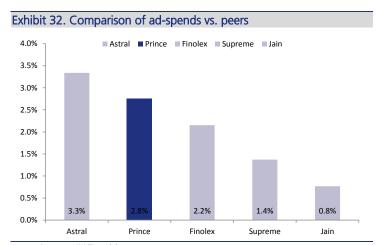
Exhibit 30. Stressed financia	als for mid-sized play	ers		
INR mn	FY16	FY17	FY18	FY19
Revenue				
Kisan	4,644	4,797	5,679	5,333
Prince SWR	2,850	3,521	4,493	3,500
Skipper (Polymer)	1,525	2,132	2,149	1,598
YoY				
Kisan		3%	18%	-6%
Prince SWR		24%	28%	-22%
Skipper		40%	1%	-26%
Net Working Capital days				
Kisan		123	111	119
Prince SWR		131	99	NA
Skipper (co level)		74	77	110
Net debt/Equity (x)				
Jain Irrigation (co level)	0.8	0.7	0.8	1.0
Kisan	5.1	2.7	1.0	1.0
Prince SWR	NA	2.2	2.0	NA
Skipper (co level)	0.9	0.7	0.7	0.7

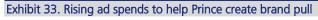
Source: Company, JM Financial

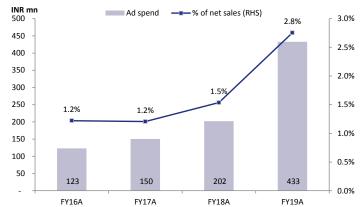
Exhibit 31. Recent performan	nce shows a sharp	dip in revenue	es					
INR mn	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20
Revenue								
Jain Irrigation (Plastic)	4,712	6,975	5,850	4,410	5,496	5,551	4,602	2,178
Kisan	1,296	1,735	1,326	1,625	1,238	1,108	761	657
Skipper (Polymer)	540	748	561	359	331	347	240	301
YoY								
Jain Irrigation (co level)					17%	-20%	-21%	-51%
Kisan					-4%	-36%	-43%	-60%
Skipper					-39%	-54%	-57%	-16%

Source: Company, JM Financial

• Prince continues to step up on brand building: Prince markets products under two brand names: Prince Piping Systems and Trubore. It believes that channel and consumers have a strong loyalty to both its brands, which has enabled it to consistently grow its brands and hence aims to augment the brands aggressively through various ways such as customer loyalty program, Below the Line (BTL) promotions, above the line promotions and social media engagements. It appointed Mr. Akshay Kumar (Bollywood actor) as a brand ambassador in 2018 in order to enhance brand equity further. As seen in Exhibit 33, Prince's advertisement spend has gone up from 1.2% to c.2.8% in FY19 (almost 4x in the past 3 years in absolute terms).



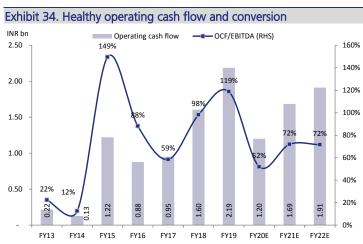


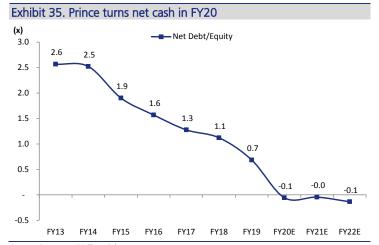


Source: Company, JM Financial

Source: Company, JM Financial

• Robust cash flow generation and strong balance sheet coupled with highest asset turn: Prince turned free cash flow positive during FY15-19 on strong operating cash flow due to robust profitability and lower pressure of working capital due to faster recovery from debtors (better bargaining power for credit terms) and higher creditor days (creditor days increased due to higher raw material import mix as China/Japan have c.120-150 credit period). Prince has turned net cash positive in FY20 due to proceeds from its recent IPO. Prince has the highest asset turnover among peers.





Source: Company, JM Financial

Source: Company, JM Financial

Exhibit 36. Prince has the highest asset turn amongst its peers											
Particulars	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY13-19	FY13-15	FY15-19	
Asset Turnover (Gross Block)											
Prince Pipes	2.6	3.1	2.7	2.6	2.9	3.0	3.5	2.9	2.8	2.9	
Supreme	2.4	2.4	2.4	1.5	2.1	2.1	2.1	2.1	2.4	2.0	
Finolex	1.3	1.3	1.3	1.7	2.8	1.8	1.5	1.7	1.3	1.8	
Astral (SA)	3.5	3.4	3.3	3.3	3.3	3.0	2.7	3.2	3.4	3.1	

Source: Company, JM Financial

DWC pipes, currently in nascent stage, can make it big in long term: Double Wall Corrugated (DWC) pipes are pipes with full circular dual-wall cross-section, with an outer corrugated pipe wall and a smooth inner surface and are used in the irrigation sector, sewerage and drainage, city-gas distribution and in chemical and processing industries. These pipes have been gaining prominence over traditional metal and cement pipes, due to durability, low maintenance and longevity vs. metal pipes. Prince has invested about

INR 0.4bn to set up capacity of c.26,400 tonnes which is spread across Chennai, Dadra and Haridwar plants and is one of the highest in the industry. Additionally, the company has contracted for 5,544 tonnes per annum in Aurangabad (Maharashtra) for western region.

• 'NAL SE JAL' - though limited visibility currently - has potential to boost the pipes industry significantly: Water supply and sanitation (WSS) and plumbing are the second largest end-user segment for plastic pipes, accounting for 35-40% share of the plastic pipes market. In the past five fiscal years (FY15-19), government expenditure on the sector posted a 22% CAGR to about INR 624bn in FY19.

The Central Government has approved INR 3.6trn for the Jal Jivan Mission, which will be majorly driven by the recently proposed "Nal se Jal" scheme, a component of the Jal Jivan Mission, which promises to provide piped drinking water to every household in the country by 2024. The Central Government has given a budgetary allocation of INR 115bn for the year 2020-21 (INR 100bn in 2019-20; 15% increase YoY).

While government spending is yet to see a meaningful ramp-up, we believe the plastic pipes industry could gain significantly from this initiative (20-40% of spending can go for plastic pipes, including large diameter pipes such as DWC as well as small pipes, depending on the nature of project).

Hypothetically, assuming full execution of the initiative (INR 3.6trn), the plastic pipes industry could see additional demand/revenue of INR 720bn (assuming a 20% share for plastic pipes) over the next five years, as compared with cumulative revenue of INR 2.1tn for the industry. This implies almost 25% additional revenue for the industry. We note that this does not include the pipes and fittings to be used by the consumer within the household.

Prince – as one of the leading players – especially with significant fittings and DWC offerings, can be a potential a big beneficiary of the successful implementation of the 'Nal Se Jal' initiative. We note that our estimates do not factor in any benefit of this scheme.

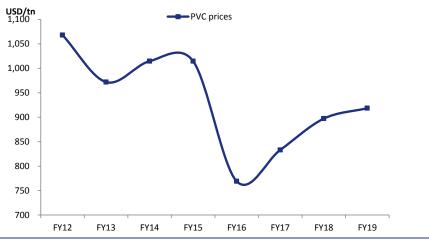
Exhibit 37. 'Nal se Jal' can be an optional val	lue for Prince
	INR bn
Total WSS project spend	3,600
Plastic Pipe share	15%
Additional revenue opportunity	540
Cumulative industry revenue (FY19-24)	2,099
Additional opportunity	26%

Key Risks

Slowdown in residential, non-residential and macro economy in general: The plastic pipes industry derives the majority its of demand from plumbing, irrigation and water transportation and sewerage applications, which in turn depend on the level of activity in residential, non-residential construction, agriculture and industrial spaces. Moreover, the housing sector also gets boosted on account of government encouragement through incentives. Any slowdown in any of these factors can impact Prince's financial performance adversely.

Volatility in raw material prices: Polyethylene (PE), PPR, PVC and CPVC resin are the key raw materials used in the plastic pipes industry, the prices of which depend on crude oil price movements and other factors such as changes in the global demand supply scenario and import-export regulations. While India currently relies almost completely on imports to meet its CPVC, 40-55% of PVC and HDPE resins are met through imports. Volatility, especially falling PVC prices lead to operating margins pressure.

Exhibit 38. PVC prices have been volatile



Source: Industry, JM Financial

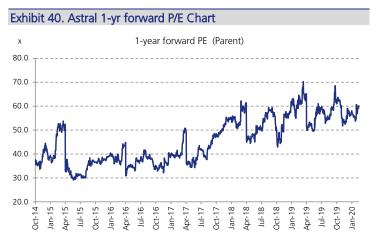
- Elevated levels of anti-dumping duty on CPVC resins: The Union Ministry of Commerce and Industry imposed a provisional anti-dumping duty (ADD) of 80-100% on CPVC resin/compound imports from China and South Korea for a period of 6 months from 26Aug'19. Given the substantial quantum of ADD, it would make the Chinese and Korean imports (constituting 30% of India's overall imports of CPVC resin) non-competitive vs. their major global peers (mainly US and Japan). Prince used to source a large portion of CPVC requirements from China and South Korea and is hence likely to see increase in costs as it steps up sourcing from other vendors. However, the impact is expected to be limited for Prince given that a) it has taken a price increase of c.8-10% in its CPVC pipes/fittings to pass on this cost increase, b) almost 70-80% of the market in CPVC is controlled by top 6 players and almost all of them have also taken price increase (quantum varies), and c) this will displace the smallest players hard. While the ADD is currently provisional and final confirmation is expected in Feb-Mar'20, this elevated ADD can impact its volume/operating margins.
- Outstanding Litigations: Two of the Promoters and Directors, Jayant Shamji Chheda and Heena Parag Chheda, are partners in M/s Aditya Developers, a partnership firm (own 10% each). Aditya Developers had entered into a joint venture agreement with Montana Developers (December 30, 2010), which went into arbitration proceedings. Montana Developers have also filed criminal complaint against Aditya Developers and its partners, including two of its Promoters and Directors, Jayant Shamji Chheda and Heena Parag Chheda. It is seeking, inter alia, specific performance of all the obligations under the JV Agreement along with damages from Aditya and its partners. If the promoters lose the case, they may have to pay damages upto INR 9,046.4mn along with applicable interest, which may lead to adverse effect on the reputation and financial condition of the Promoters.

Valuation:

We value Prince at 18xFY22EPS to arrive at Mar'21TP of INR240 a potential upside of 34%. Our valuation rationale is explained as follows:

- a) The plastic pipes industry is estimated to post a 12-14% CAGR over the next 5 years and is undergoing a fair amount of consolidation on account of large and small players significantly scaling down owing to balance sheet issues.
- b) Prince is the only listed large play in the plastic pipes industry with 100% exposure to plastic pipes.
- c) Prince is one of the most diversified players in terms of polymers and end-user applications. It has a pan-India presence with one of the highest number of distributors/dealers.
- d) Prince is expected to post 22% CAGR in EPS on the back of steady revenue growth (12%) and operating leverage coupled with interest cost reduction. It has become a net cash company, post IPO.
- e) Leading competitors Supreme Industries and Astral trade at 26.3/38.4 FY22E EPS (Bloomberg/consensus), an effective discount of 49/65%.
- f) We believe the current discount (at 50%/67%) would reduce as Prince reports strong EPS growth and concerns over the sustainability of its operating margins abate (which have picked up since FY17). Moreover, increasing visibility of the 'Nal Se Jal' scheme would further provide re-rating potential for the company.





Source: Company, Bloomberg, JM Financial

Source: Company, Bloomberg, JM Financial

Valuation comparison with Peers: Prince at a significant discount

Exhibit 41	. Valuation	Snapshot: P	rince at a si	gnificant di	scount to p	eers					
	Reco	M/Cap	CMP	TP	Upside	Share O/s Target CAGR (FY19-22E) FY22 PEG mn P/E (x) Revenue EBITDA PAT 110 18.0 12% 13% 22% 0.6 NR NR 18% 22% 32% 1.2 NR NR 10% 12% 14% 1.8					
Company		(INR bn)	(INR/sh)	(INR/sh)		mn	P/E (x)	Revenue	EBITDA	PAT	FY22 PEG
Prince*	BUY	20	179	240	34%	110	18.0	12%	13%	22%	0.6
Astral	NR	181	1,211	NR	NR	NR	NR	18%	22%	32%	1.2
Supreme	NR	175	1,390	NR	NR	NR	NR	10%	12%	14%	1.8
Finolex	NR	68	545	NR	NR	NR	NR	11%	7%	14%	0.9

	PE (x)				PBV (x)				EV/EBITDA (x)			
Company	FY19	FY20E	FY21E	FY22E	FY19	FY20E	FY21E	FY22E	FY19	FY20E	FY21E	FY22E
Prince*	24.0	16.5	15.7	13.4	4.9	2.3	2.1	1.8	12.2	8.3	8.2	6.8
Astral	93.0	59.7	47.9	38.4	14.2	11.4	9.7	8.8	47.7	37.5	31.6	26.5
Supreme	39.4	36.4	31.1	26.3	8.2	7.4	6.5	5.8	22.7	21.6	18.6	16.3
Finolex	19.3	16.9	14.8	12.7	2.7	2.4	2.2	2.0	9.9	11.0	9.2	8.1

Discount		PE (x)				PBV	(x)		EV/EBITDA (x)			
Company	FY19	FY20E	FY21E	FY22E	FY19	FY20E	FY21E	FY22E	FY19	FY20E	FY21E	FY22E
Astral	-74%	-72%	-67%	-65%	-65%	-80%	-78%	-79%	-74%	-78%	-74%	-74%
Supreme	-39%	-55%	-50%	-49%	-40%	-69%	-68%	-68%	-46%	-61%	-56%	-58%
Finolex	24%	-2%	6%	5%	84%	-5%	-6%	-9%	23%	-24%	-10%	-16%

		Revenue (INR bn)			EBITDA (II	NR bn)		PAT (INR bn)			
Company	FY19	FY20E	FY21E	FY22E	FY19	FY20E	FY21E	FY22E	FY19	FY20E	FY21E	FY22E
Prince*	15,719	17,377	19,481	21,819	1,841	2,310	2,343	2,671	821	1,193	1,256	1,475
Astral	25,073	30,191	35,552	41,673	3,849	4,897	5,807	6,940	1,958	2,918	3,626	4,482
Supreme	55,644	58,657	65,876	74,547	7,846	8,250	9,611	10,952	4,486	4,844	5,729	6,706
Finolex	30,685	33,268	37,632	42,490	6,043	5,485	6,560	7,402	3,498	3,954	4,565	5,183

		EBITDA (%)				RoE (9	6)		RoCE (%)			
Company	FY19	FY20E	FY21E	FY22E	FY19	FY20E	FY21E	FY22E	FY19	FY20E	FY21E	FY22E
Prince*	11.7%	13.3%	12.0%	12.2%	22.9%	19.0%	13.9%	14.6%	15.8%	15.8%	12.9%	14.0%
Astral	15.4%	16.2%	16.3%	16.7%	17.1%	20.3%	21.0%	21.6%	20.5%	20.5%	20.5%	20.5%
Supreme	14.1%	14.1%	14.6%	14.7%	22.2%	21.5%	22.3%	23.0%	25.0%	25.0%	25.0%	25.0%
Finolex	19.7%	16.5%	17.4%	17.4%	13.2%	14.7%	15.5%	17.1%	24.6%	25.9%	25.9%	25.9%

Source: Company, JM Financial, Bloomberg *Prince Pipes numbers are based on JMFe, all other companies are based on Bloomberg consensus

Industry structure

Industry expected to record 12-14% CAGR over FY19-24E: The plastic pipes industry in India is driven by investments in the agriculture and construction space, namely irrigation, water supply and sanitation (WSS), as well as housing. The industry typically mirrors economic growth. However, in the past five fiscal years (FY14-19), the plastic piping industry has grown faster than GDP due to a) high growth in end-use sector investments such as irrigation and urban infrastructure and b) increased awareness, and adoption and substitution of metal pipes by plastic pipes due to their lower price, higher longevity, relative resistance to leakage, and easy installation. The industry expects to post c.12-14% CAGR over FY19-24E, reaching INR 500bn-550bn, largely to be driven by a) a government focus on irrigation (increasing area under irrigation), WSS projects (focus on urban infrastructure) and real estate sector (implemented RERA and Housing for All by 2022); b) an expected increase in India's per capita plastic consumption (from the current 11kg; global average of 30kg); and c) an increase in the application of CPVC (which are expensive and placed high on qualitative parameters vs. UPVC pipes).

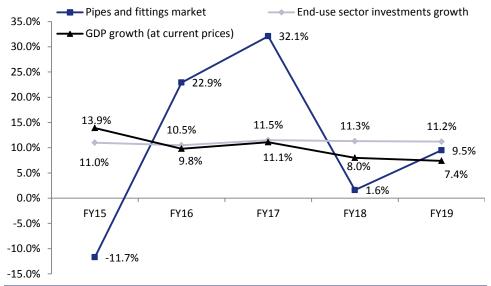
FY19 Plastic Pipe Industry revenue-INR 295bn
Others, 4%
Sewerage, 12%
WSS and
Plumbing, 37%

Exhibit 43. GDP growth vs. Plastic Pipes and Fittings industry growth INR bn Plastic Pipes and Fittings Market Size Organised industry- 60-65% 600 12% -14% CAGR 500 400 10%-12% CAGR 300 200 100 145 165 180 205 225 250 270 295 525 FY12A FY13A FY14A FY15A FY16A FY17A FY18A FY24E

Source: Company, JM Financial

Source: Company, JM Financial

Exhibit 44. Plastic pipes industry growth has been faster than GDP growth



Plastic Pipes industry has superior growth potential compared with other building material categories: As per a CRISIL Research Report, plastic pipes are expected to grow fastest compared with other building materials such as paints, ceramics (tile and sanitary ware) and wood panels over FY19-24E driven by various government initiatives, private sector investments, and other drivers such as increasing substitution and replacement demand. Moreover, the launch of new innovative products to cater to the needs of various end users also adds to the attractiveness of the pipes industry.

Exhibit 45. Plastic Pipes and F	ittings is expecte	ed to witness hig	hest CAGR over	FY19-24E
Particulars	Plastic Pipes	Paints	Ceramic tiles and sanitaryware	Plywood and Laminates
FY19 industry size (INR bn)	290-300	470	320-325	280-300
Share of organised segment	60-65%	70-75%	~50%	Plywood – 20- 25%, Laminates – 40%
CAGR FY14-19	10-12%	8-10%	3%	6-8%
CAGR FY19-24E	12-14%	10-12%	5-6%	8-10%

Source: Company, JM Financial

Highly fragmented Industry with significant unorganised sector presence: The Indian Pipes Industry is characterised by a large number of unorganised players (which account for a 35-40% share of total pipes industry) on account of a) low entry barriers (technology, licenses, and capital expenditure); and b) a relatively higher availability of raw material, especially UPVC, in the domestic market. Among organised players, Supreme Industries enjoys the largest market share (of overall market) at c.11% in FY19, followed by Finolex Industries (9%). Prince is the 6th largest player with a 5% share in FY19. Success of the players typically depends upon their distribution network, product portfolio, end-use sector mix, presence in the pipes as well as fittings segments, and level of brand acceptance in regional markets.

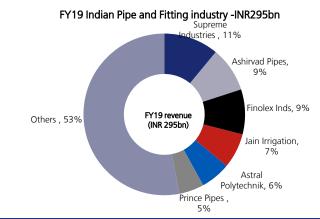
Exhibit 46. Highly unorganised industry

35-40%

FY19 Revenue (INR 295bn)

60-65%

Exhibit 47. Top 6 organised players hold an approximately 49% share



Source: Company, JM Financial Source: Company, JM Financial

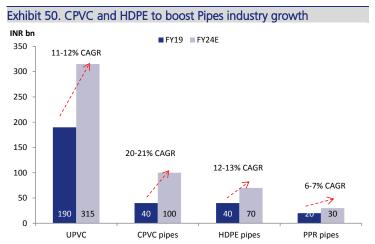
Consolidation in mid-sized organised players is benefitting large players: Due to a sharp increase in PVC resin prices, financial crisis in the NBFC sector and slow demand environment in FY19, various mid-sized plastic pipe companies were facing immense pressure on the working capital front. Non-availability of working capital lines from banks/NBFCs at the required time led to stretched working capital days forcing the mid-sized players to scale down operations. The supply vacuum created by the downfall of the mid-sized players is being effectively tapped by the larges players including Prince Pipes, which will help increase the market share of large organised players (top 6 players held c.49% share in FY19).

Exhibit 48. Mid-sized player	's stress evident i	n recent year	S		
Company	FY15	FY16	FY17	FY18	FY19
Revenue					
Prince	9,572	10,074	12,465	13,150	15,719
Supreme	21,130	15,850	24,530	27,285	31,728
Finolex	16,938	17,821	22,169	23,288	25,748
Astral	12,521	13,180	14,748	15,820	19,157
Kisan	4,490	4,644	4,797	5,679	5,333
Prince SWR	2,777	2,850	3,521	4,493	3,500
Skipper	897	1,525	2,132	2,149	1,598
YoY					
Prince		5%	24%	5%	20%
Supreme		-25%	55%	11%	16%
Finolex		5%	24%	5%	11%
Astral		5%	12%	7%	21%
Kisan		3%	3%	18%	-6%
Prince SWR		3%	24%	28%	-22%
Skipper		70%	40%	1%	-26%
Net debt/Equity (x)				,	
Prince	1.9	1.6	1.3	1.1	0.7
Supreme	0.2	0.3	0.1	0.1	0.1
Finolex	0.8	0.1	0.0	0.0	0.0
Astral	0.3	0.2	0.3	0.1	0.1
Jain Irrigation (co level)	1.0	0.8	0.7	0.8	1.0
Kisan	3.6	5.1	2.7	1.0	1.0
Prince SWR	2.8	NA	2.2	2.0	NA
Skipper	0.9	0.9	0.7	0.7	0.7
Net Working Capital days					
Prince	98	93	85	88	69
Supreme	31	47	38	39	34
Finolex	53	41	37	47	43
Astral	53	41	44	50	43
Jain Irrigation (co level)	116	120	127	117	121
Kisan	133	124	123	111	119
Prince SWR	179	NA	131	99	NA
Skipper	90	83	74	77	110

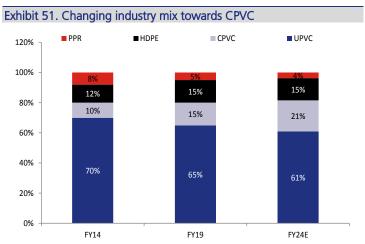
Exhibit 49. Large players gaini	ing market share	from mid-size	d players as vis	ible in quarterl	y revenues			
INR mn	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20
Revenue								
Prince	3,302	3,947	3,290	3,840	3,610	4,990	3,800	4,400
Supreme	6,665	8,288	7,470	6,830	7,997	9,408	8,980	8,115
Finolex	5,320	6,827	7,225	4,705	5,906	7,911	8,512	5,170
Astral	3,905	4,941	3,443	4,376	4,884	6,056	4,725	5,446
Jain Irrigation (Plastic)	4,712	6,975	5,850	4,410	5,496	5,551	4,602	2,178
Kisan	1,296	1,735	1,326	1,625	1,238	1,108	761	657
Skipper (Polymer)	540	748	561	359	331	347	240	301
YoY								
Prince					9%	26%	16%	15%
Supreme					20%	14%	20%	19%
Finolex					11%	16%	18%	10%
Astral					25%	23%	37%	24%
Jain Irrigation (co level)					17%	-20%	-21%	-51%
Kisan					-4%	-36%	-43%	-60%
Skipper					-39%	-54%	-57%	-16%

Source: Company, JM Financial

Changing mix towards CPVC pipes beneficial for organised players: Plastic pipes are manufactured from various types of polymers namely UPVC, CPVC, HDPE, and PPR; but historically most of the players were present in the UPVC segment (65% of the Pipes industry in FY19) as it benefitted from the cheapest source of raw material and could be sourced domestically. Going forward, high-value products (CPVC and HDPE) are expected to grow faster (20-21%/12-13% CAGR over FY19-24E, respectively) on a) low base (accounts for meagre 15%/15% of pipes industry in FY19 respectively); b) ability to withstand high temperatures; and c) comparatively higher quality parameters than UPVC (higher longevity, better anti-corrosion properties, extremely low bacterial growth, etc.). Further, CPVC segment provides branded players opportunity to increase their market share given technological barriers for the category (currently, all CPVC polymer is imported into India making it difficult for unorganised players). On the other hand, HDPE pipes are expected to thrive upon government schemes such as PMKSY (drip and sprinkler irrigation) and WSS projects (large diameter sewerage pipes).



Source: Company, JM Financial



UPVC pipes: These pipes are used in agriculture and plumbing for portable water supply and sewerage. This category continues to gain from a) continuous replacement of galvanised iron pipes with these pipes due to affordability and longer life compared with metal pipes; and b) government initiatives- such as AIBP. The presence of various brands and established players has ensured steady growth of this segment. Over FY19-24E, segment is expected to record healthy CAGR of 11-12%.

CPVC pipes: These pipes are primarily used in plumbing applications, as well as hot and cold potable water distribution systems. Demand growth for this segment over the past five fiscal years (FY14-19) has been the highest among pipes, as CPVC pipes in India are still at a nascent stage and have huge potential due to factors such as longevity, being corrosion free, being fire resistant, being lead-free, and their ability to withstand high temperatures. Industry expects CPVC is expected to record 20-21% CAGR over FY19-24E and its revenue share is expected to increase from 15% of the industry in FY19 to above 20% in FY24E.

HDPE pipes: These pipes are used in the irrigation sector, sewerage and drainage, city gas distribution and in chemical and processing industries. HDPE pipes account for approximately 15% share in the total plastic pipes industry (FY19). These pipes have been gaining prominence over traditional metal and cement pipes, owing to durability, low maintenance and longevity vis-à-vis metal pipes. Government schemes such as PMKSY are expected to lend support to the segment. Consequently, the segment is expected to witness robust 12-13% CAGR over FY19-24E.

PPR pipes: These pipes account for c.5% of the total plastic pipes demand. These pipes, which are used for various industrial purposes, are relatively costly compared with other plastic pipes, which restricts their usage. This segment is expected to record 6-7% CAGR over FY19-24E.

■ Low plastic per capita consumption depicts a long term growth opportunity: India has a very low per capita plastic consumption of c.11 kg vs. the global average of 30 kg, with traditional materials dominating the application areas of plastic. However, over the past 3-4 years, low crude oil prices and superior properties of plastic have increased plastic usage in India. Hence, it expects per capita consumption to continue to inch-up resulting into healthy 7-9% CAGR in demand for polymers over FY19-24E.

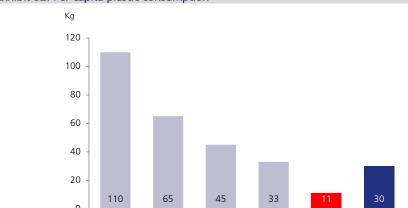


Exhibit 52. Per capita plastic consumption

Source: Company, JM Financial

GST rollout and E-Way Bill mechanism to benefit organised players immensely: Currently, the organised segment accounts for 60-65% of the country's plastic piping industry, while the unorganised represents the remaining (mainly catering to sectors such as irrigation and plumbing that have low quality requirements).

China

Europe

Brazil

India

World Average

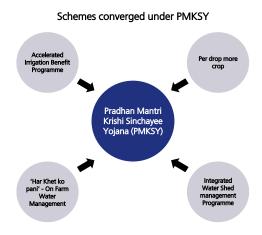
The input tax credit - being the crux of the GST mechanism - will ensure wider coverage of tax payers in the supply chain (raw material is supplied by organised players) as only

US

supply from registered taxpayers will be allowed for input tax credit, businesses and stakeholders will insist on registration of their suppliers and traders, leading to increase in the share of organised participants. Moreover, organised players are expected to greatly benefit from GST due to a) seamless transport of goods across state borders, which would also result in efficiency gains due to structural changes in the supply chain (from practices such as 'multiple warehousing' to the 'hub and spoke' model) and b) smooth interstate goods movement, enabling them to cater to the regions that were earlier only serviced by small, local and unorganised players.

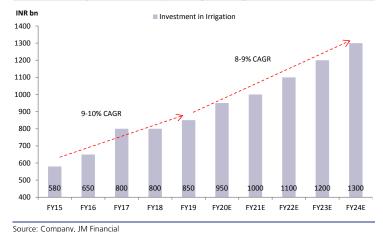
■ Low irrigation levels and increasing government investments augurs well for the plastic pipes industry: The irrigation sector is biggest end-use segment for plastic pipes, which accounts for 45-50% of the industry. Of India's approximately 160mn hectares of cultivated land, a little less than 50% is irrigated. The central government converged irrigation schemes under PMKSY in FY16, with a spending target of INR 500bn until 2020 with an objective of enhancing the area under cultivation by 2.85 million hectares in FY17 and by 8mn hectares by 2020. Overall irrigation investments are expected to be at INR 6tn over FY19-24 as compared to INR 3.9trn over the past five years (FY14-19). Of the total investment in irrigation, construction expenditure is estimated to be c.75%. This construction activity will lend support to pipes and fittings industry.

Irrigation investments are heavily skewed, with the top seven states - Andhra Pradesh, Telangana, Maharashtra, Karnataka, Gujarat, Madhya Pradesh and Uttar Pradesh constituting 75% of the total investments during FY14-19 (average achievement ratio for these states was c.95% in the past few years. While most of these states are expected to focus on completing existing major and medium irrigation projects, other states like Odisha, Rajasthan and Chhattisgarh have significantly increased their allocations towards irrigation.



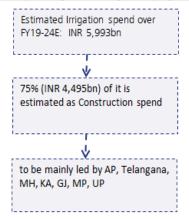
Source: Prince DRHP, CRISIL Research, JM Financial

Exhibit 53. Projected annual spending for Irrigation sector



ource: Company, Jivi Financiai

Exhibit 54. Relevant spending under irrigation projects



Source: Company, JM Financial; Note: AP – Andhra Pradesh, MH – Maharashtra, GJ – Gujarat, KA – Karnataka, MP – Madhya Pradesh and UP – Uttar Pradesh.

- Increasing government investments in infrastructure- key driver for WSS segment: In the past five fiscal years (FY15-19), government expenditure on the sector posted a 22% CAGR, reaching about INR 624bn in FY19. This was led by several Central government schemes, coupled with rising emphasis by municipal authorities, such as Mumbai Metropolitan Region Development Authority, Mumbai and Pune municipal corporations, etc. Overall WSS investments are estimated to be INR 2,924bn over FY19-24, compared with INR 1,753bn over FY15-19. This will also be driven by the recently proposed "Nal se Jal" scheme, a component of the Jal Jivan Mission, which promises to provide piped drinking water to every household in India by 2024. The scheme comes under the domain of the Jal Shakti Ministry, which has merged the ministries of water resources, river development and Ganga Rejuvenation with the Drinking Water and Sanitation portfolio.
 - Swachh Bharat Mission: Government schemes such as the Swachh Bharat Mission and the National Mission for Clean Ganga (NMCG) are likely to boost WSS investments.
 On 2Oct'14, the Prime Minister of India launched the Swachh Bharat Mission to focus

on sanitation and accelerate efforts to achieve universal sanitation coverage. It comprises two sub-missions – Swachh Bharat Mission (Gramin) and Swachh Bharat Mission (Urban) – which together aim to achieve the target of Swachh Bharat Mission by FY19. The mission's Components are: construction of households, community and public toilets, including conversion of insanitary latrines into pour-flush latrines.

- AMRUT: In May 2015, the government approved replacement of JNNURM with AMRUT to focus on basic infrastructure services, such as water supply, sewerage, storm water drains, transport, and development of green spaces and parks. The scheme also covers JNNURM projects sanctioned between 2003-04 and 2010-11, and those that have achieved 50% physical progress (102 projects), or have availed of 50% central government funding until now (296 projects).
- Smart Cities: The Ministry of Urban Development, in June 2015, laid down operational guidelines for formulation, approval and execution of projects under the Smart Cities Mission with an objective to drive economic growth and improve the quality of life by enabling local area development and harnessing technology. Core infrastructure elements of a smart city include adequate water supply, sanitation, affordable housing, etc. The mission will cover 100 cities (distributed among states and union territories over FY16-20).

Exhibit 55. Projected annual Urban Infrastructure spending

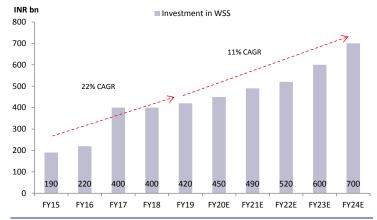
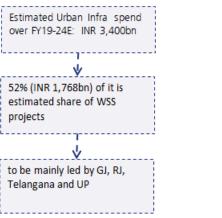


Exhibit 56. Relevant spending under WSS projects



Source: Company, JM Financial

Source: Company, JM Financial; Note: $\mathsf{GJ}-\mathsf{Gujarat}$, $\mathsf{RJ}-\mathsf{Rajasthan}$ and $\mathsf{UP}-\mathsf{Uttar}$ Pradesh

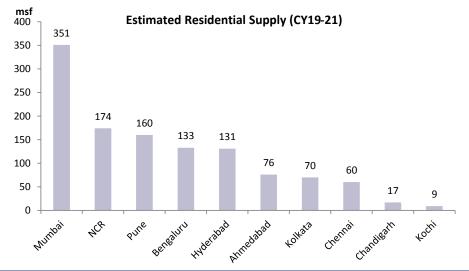
Significant unmet housing demand offers another growth driver for pipes industry: Real estate is a key end-user sector for plastic pipes and fittings in India. Over the last few years, end-user demand for real estate has been sluggish. Developers had delayed the possession of projects in many instances due to various reasons, including approval delays and financial issues. However, with the implementation of Real Estate Regulatory Authority (RERA), the confidence of end-users will improve.

Some of the key drivers for real estate demand are below:

- Growth in population (to post a 1.6% CAGR over FY11-21 to 1.4bn vs. 1.8% CAGR during FY01-11)
- Urbanisation (from 31% in CY11 to 36% by CY20) and traction in demand in tier II and III cities
- Surging demand from rural sector (due to rise in farm income)
- Increasing disposable income (will drive affordability)
- Increase in finance penetration
- The interest-subvention scheme, interest deduction from taxable income, tax exemption for principal repayment and exemption from capital gains will also be key drivers
- RERA- RERA, which came into force on 1May'17, is expected to result in improved transparency, timely delivery and organised operations

Pradhan Mantri Awas Yojana (PMAY- Housing For All by 2022): This was launched on 25Jun'15 with an aim to minimise the housing shortage of urban poor (estimated shortage of c.20 million dwelling units) by providing central assistance to the implementing agencies through states and union territories to all eligible families/beneficiaries by 2021-22. Industry estimates c.1.16bn sqft of housing supply under execution across select cities (NCR, Mumbai, Bengaluru, Pune, Hyderabad, Kolkata, Chennai, Ahmedabad, Chandigarh and Kochi) by CY21

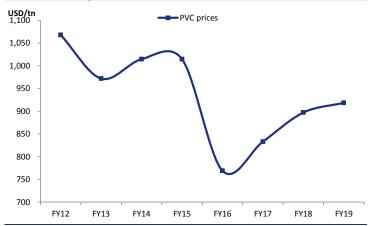




Source: Company, JM Financial

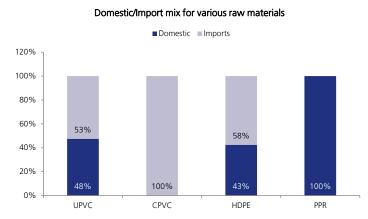
Raw material prices volatile for plastic pipes: Polyethylene (PE), PPR, PVC and CPVC resin are the key raw materials used in the plastic pipes industry, the prices of which depend on crude oil price movements and other factors such as changes in the global demand supply scenario and import-export regulations. Crude oil price is highly volatile, thus imparting volatility to prices of petrochemical products. Since raw material costs constitute 65-70% of operating income, industry players have to adjust end product prices in order to protect margins. While India currently relies completely on imports to meet its CPVC requirements, 45-50% of PVC resins demand is met by domestic players such as Reliance, Chemplast Sanmar, Finolex Industries, DCW and DCM Shriram and the remaining demand is met through imports. In the PE segment, 50% of the demand is accounted by HDPE of which 40-45% requirement is met via imports (UAE has the highest share). India is self-sufficient in terms of demand and supply for PPR.





Source: Industry, JM Financial

Exhibit 59. Domestic/Import mix



Source: Industry, JM Financial

'Nal se Jal' execution can be a big boost for the Plastic Pipe industry:

After the NDA government came back to power, in May'19, the erstwhile ministries of water resources and drinking water and sanitation were merged in the ministry of Jal Shakti. As a result, all the water related departments – surface water, ground water, river rejuvenation, irrigation etc. and departments looking at the use of water have come under a single ministry, which could significantly ease the implementation of large programmes by easing the process and timelines of sharing data / resources within the government.

The Government has initiated the Jal Shakti Abhiyan to stimulate rainwater harvesting and water conservation efforts in 255 water stressed districts of the country. Overall, 313 blocks with critical groundwater levels would be covered, along with 1,186 blocks with overexploited groundwater and 94 blocks with low groundwater availability.

In this campaign, teams of officers from the central government will visit and work with district administration in 1592 water stressed blocks in 256 districts, to ensure five important water conservation interventions. These will be (a) water conservation and rainwater harvesting, (b) renovation of traditional and other water bodies / tanks, (c) reuse and bore well recharge structures, (d) watershed development and (d) intensive afforestation.

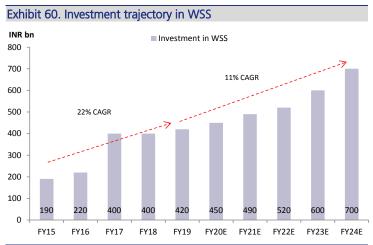
These campaigns and the personal involvement of the PM through addresses to the nation clearly indicated the importance of water conservation and prudent usage as a key development agenda for the next five years.

Beneficiaries from expansion of piped drinking water projects

Our study of the piped drinking water projects indicate key components in a piped drinking water project are -

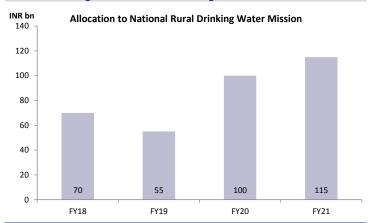
- (a) Pipes (40%) From the mains to village level and then to the house-holds through the pipes. Pipes industry is expected to be the biggest beneficiary of the 'Nal se Jal' project. Of the total spend on pipes, c.35% is estimated spend on plastic pipes
- (b) EPC or the civil work related activities (25%) Construction of reservoirs, other civil structures etc.
- (c) Water treatment (25%) Based on the quality of water in the area, water is treated and then sent across for drinking purposes
- (d) Pumps / valves (10%) Used for transferring water from source to reservoirs and also in the distribution network

Water supply and sanitation (WSS) and plumbing are the second largest end-user segments for plastic pipes, accounting for 35-40% share of the plastic pipes market. In the past five Fiscal years (i.e., from FY15-19), government expenditure on the sector posted a c.22% CAGR to about INR 624bn in FY19. The Central Government has approved INR 3.6tn for Jal Jivan Mission which will be majorly driven by the recently proposed "Nal se Jal" scheme, a component of the Jal Jivan Mission, which promises to provide piped drinking water to every household in the country by 2024. The Central Government has given a budgetary allocation of INR 115bn for the year 2020-21 (INR 100bn in 2019-20; 15% increase YoY). Top plastic pipe players including Prince Pipes are expected to get a large share of demand originated from "Nal se Jal" scheme. As per our calculations, Prince can get additional revenue of c.INR 25bn over the next 5 years assuming the current market share (c.5% in FY19).



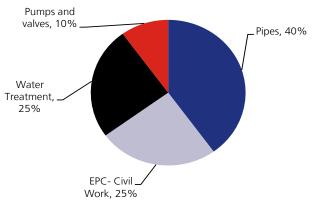
Source: Industry, JM Financial

Exhibit 61. Budget allocation to Drinking water mission



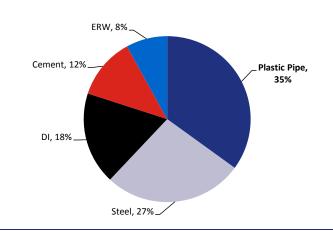
Source: Union Budget, JM Financial

Exhibit 62. Piping industry gets the largest share of expenditure in a typical piped drinking water project



Source: Industry, JM Financial

Exhibit 63. Indian Pipe industry mix



Source: Industry, JM Financial

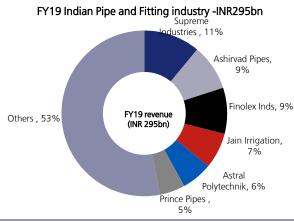
Exhibit 64. 'Nal se Jal' to be a significant optional value for Prince							
	INR bn						
Total WSS project spend	3,600						
Plastic Pipe share	15%						
Additional revenue opportunity	540						
Cumulative industry revenue (FY19-24)	2,099						
Additional opportunity	26%						

Source: JM Financial

Competitive landscape analysis

■ Supreme is the market leader followed by Ashirvad; Prince is the 6th largest player: The organised segment in the pipes and fittings industry accounts for c.60-65% share of the country's plastic piping industry. Supreme Industries continues to enjoy the largest share of the market at c.11% in FY19, followed by Ashirvad (9%). The market share of Prince increased to 5% in FY19 vs. 4.5% in FY16.

Exhibit 65. Market share in Pipes and Fittings industry



Source: Company, JM Financial

Further, competitiveness of the players is determined by diversification in the product portfolio - in terms of which end-use sectors' industry players cater to and presence in pipes as well as fittings segment. Prince Pipes and Fittings and Supreme Industries continue to maintain a strong position with regards to these aspects.

Exhibit 66. Prince is the only com	pany prese	ent in all p	roduct cat	egories							
Company	Prince	Supreme	Ashirvad	Finolex	Jain	Astral	Ajay	Kisan	Nandi	Prince SWR	Vectus
Product Category	WPRINCE	Supreme	ashirvad	FinOlex	And the Second Lie	∆ ASTRAL	YALAA	KisaN	State From	- Service -	VECTUS
CPVC Plumbing Systems	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
UPVC Plumbing Systems	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
UPVC - Underground Drainage Pipes	✓	✓	✓	✓	✓	✓	✓	✓	×	×	×
SWR Systems with World Class Seals	✓	✓	✓	✓	×	✓	✓	✓	×	×	×
Low Noise SWR Piping Systems	✓	✓	✓	×	×	x	×	×	×	×	×
HDPE - DWC Underground Drainage Pipes	✓	✓	×	×	✓	✓	×	✓	×	×	×
Roofwater Systems	✓	×	×	×	×	×	×	✓	×	✓	×
PPR Plumbing Systems	✓	✓	×	×	×	×	×	×	×	✓	✓
Agri Pressure & Non Pressure Piping Systems	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓
Borewell Systems	✓	✓	✓	×	×	✓	×	✓	×	×	×
Manhole & Chamber Covers	✓	✓	×	×	×	×	×	×	×	✓	✓

As seen in Exhibit 67:

- Historically, Prince has shown the **second highest** volume CAGR after Astral.
- Prince has shown the **third highest** revenue CAGR after Ashirvad and Astral.

Exhibit 67. Volume and Re	evenue comp	arison amoi	ng industry p	olayers						
INR bn	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY13-19	FY13-15	FY15-19
Volumes (000 tonnes)										
Prince Pipes	70	90	82	88	96	110	129	11%	8%	12%
Supreme	176	188	204	163	235	256	280	8%	8%	8%
Finolex	175	177	186	207	208	260	259	7%	3%	9%
Astral	49	60	70	78	89	104	123	16%	19%	15%
YoY										
Prince Pipes		29%	-9%	8%	9%	14%	18%			
Supreme		7%	9%	-20%	44%	9%	9%			
Finolex		1%	5%	12%	0%	25%	0%			
Astral		22%	16%	11%	15%	16%	18%			
Revenue										
Prince Pipes	8.0	10.1	9.6	10.1	12.5	13.2	15.7	12%	9%	13%
Supreme	34.0	39.6	42.5	29.6	44.6	49.7	56.1	9%	12%	7%
Finolex	21.4	24.5	24.8	24.8	26.3	27.4	30.9	6%	7%	6%
Astral	8.3	10.8	14.3	16.8	18.9	20.7	25.1	20%	32%	15%
Ashirvad		11.3	14.0	16.1	19.9	24.2	26.7			18%
Jain Irrigation (Plastic)			13.8	16.8	18.0	19.9	21.3			11%
Vectus			4.6	5.3	5.6	6.1	6.8			10%
Kisan			4.5	4.6	4.8	5.7	5.3			4%
Prince SWR		2.4	2.8	2.9	3.5	4.5	3.5			6%
Skipper (Polymer)			0.9	1.5	2.1	2.1	1.6			16%
YoY							L			
Prince Pipes		26%	-5%	5%	24%	5%	20%			
Supreme		16%	7%	-30%	51%	11%	13%			
Finolex		14%	1%	0%	6%	4%	13%			
Astral		31%	32%	17%	13%	9%	21%			
Ashirvad			24%	15%	23%	22%	10%			
Jain Irrigation (Plastic)				22%	7%	11%	7%			
Vectus				14%	5%	11%	10%			
Kisan				3%	3%	18%	-6%			
Prince SWR			15%	3%	24%	28%	-22%			
Skipper (Polymer)				70%	40%	1%	-26%			

Operating margins are a function of its product mix (Agri/Plumbing) and polymer mix (PVC/CPVC). As seen in Exhibit 68, Prince has one of the highest margins in the industry, after Ashirvad, Supreme and Astral (of which, Ashirvad and Astral have significant contribution from CPVC mix). We also evaluate margins on an INR/kg basis, where Prince scores well.

Exhibit 68. EBITDA and I	margin comp	arison amor	g the indust	try players						
INR bn	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY13-19	FY13-15	FY15-19
EBITDA										
Prince Pipes	1.0	1.0	0.8	1.0	1.6	1.6	1.9	12%	-8%	23%
Supreme	5.4	5.9	6.7	4.6	7.6	7.9	7.8	7%	12%	4%
Finolex	3.6	4.0	2.1	4.1	5.9	4.8	6.0	9%	-23%	30%
Astral	1.2	1.6	1.7	2.1	2.6	3.2	3.8	22%	21%	23%
Ashirvad		1.9	2.2	2.4	4.0	4.9	5.0			23%
Vectus			0.6	0.6	0.6	0.6	0.7			6%
Kisan			0.2	0.3	0.4	0.4	0.3			12%
Prince SWR		0.2	0.2	NA	0.2	0.2	NA			
Skipper (Polymer)			0.1	0.2	0.2	0.2	0.1			-18%
YoY										
Prince Pipes		6%	-20%	22%	63%	0%	14%			
Supreme		10%	13%	-31%	65%	3%	0%			
Finolex		11%	-47%	93%	44%	-18%	25%			
Astral		35%	8%	23%	27%	20%	22%			
Ashirvad			15%	10%	65%	23%	2%			
Vectus				4%	-6%	13%	14%			
Kisan				47%	34%	10%	-29%			
Prince SWR			21%			14%				
Skipper (Polymer)				55%	17%	3%	-76%			
EBITDA Margin										
Prince Pipes	12.0%	10.2%	8.5%	9.9%	13.0%	12.4%	11.8%	11.1%	10.3%	11.1%
Supreme	15.7%	14.9%	15.7%	15.6%	17.1%	15.8%	14.0%	15.5%	15.4%	15.6%
Finolex	16.7%	16.2%	8.5%	16.4%	22.4%	17.7%	19.5%	16.8%	13.8%	16.9%
Astral	14.0%	14.4%	11.8%	12.4%	13.9%	15.3%	15.4%	13.9%	13.4%	13.7%
Ashirvad		17.1%	15.8%	15.0%	20.2%	20.4%	18.8%	17.9%	16.4%	18.0%
Vectus			12.7%	11.5%	10.3%	10.6%	10.9%	11.2%	12.7%	11.2%
Kisan			4.2%	6.0%	7.9%	7.3%	5.5%	6.2%	4.2%	6.2%
Prince SWR		8.0%	8.4%	NA	4.3%	3.9%	NA	6.1%	8.2%	5.5%
Skipper (Polymer)			13.9%	12.7%	10.6%	10.8%	3.5%	10.3%	13.9%	10.3%

Particulars	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Pipes EBITDA margin							
Prince Pipes	12.0%	10.2%	8.5%	9.9%	13.0%	12.4%	11.8%
Supreme	16.1%	15.0%	13.3%	14.3%	16.3%	14.3%	12.8%
Finolex	6.3%	9.8%	9.2%	11.3%	9.2%	7.2%	8.6%
Astral	13.6%	14.0%	12.4%	13.4%	14.6%	15.4%	16.4%
YoY							
Prince Pipes		-190 bps	-160 bps	140 bps	320 bps	-60 bps	-60 bps
Supreme		-110 bps	-170 bps	100 bps	190 bps	-200 bps	-150 bps
Finolex		340 bps	-60 bps	210 bps	-210 bps	-200 bps	150 bps
Astral		40 bps	-160 bps	90 bps	120 bps	80 bps	110 bps

Source: Company, JM Financial

Exhibit 70. Prince has del	ivered highest EBI	TDA/kg grow	th CAGR ove	r FY15-19					
Particulars	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY13-19	FY15-19
Pipes EBITDA/Kg (INR)									
Prince Pipes	13.8	11.4	10.0	11.3	16.9	14.9	14.4	1%	10%
Supreme	15.6	16.4	13.8	13.9	17.0	15.2	14.5	-1%	1%
Finolex	5.0	8.6	8.4	9.7	9.8	6.4	8.6	10%	1%
Astral	22.6	25.0	21.4	21.3	23.1	22.8	24.7	2%	4%
YoY									
Prince Pipes		-18%	-12%	13%	49%	-12%	-3%		
Supreme		6%	-16%	1%	22%	-11%	-5%		
Finolex		73%	-3%	16%	1%	-34%	34%		
Astral		11%	-14%	-1%	9%	-2%	9%		

Source: Company, JM Financial

Exhibit 71. Prince has del	ivered a healthy P.	AT CAGR ove	er FY13-19						
INR bn	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY13-19	FY15-19
Adj.PAT (Co level)									
Prince Pipes	0.4	0.3	0.2	0.3	0.7	0.7	0.8	14%	52%
Supreme	2.7	2.8	3.2	2.2	3.8	4.1	3.8	6%	5%
Finolex	2.1	2.2	0.6	2.4	3.5	3.0	3.7	9%	56%
Astral	0.6	0.8	0.8	1.1	1.5	1.8	2.0	22%	28%
YoY									
Prince Pipes		-34%	-37%	88%	151%	-2%	15%		
Supreme		3%	12%	-30%	72%	8%	-7%		
Finolex		5%	-72%	285%	47%	-16%	23%		
Astral		30%	-4%	50%	27%	23%	15%		

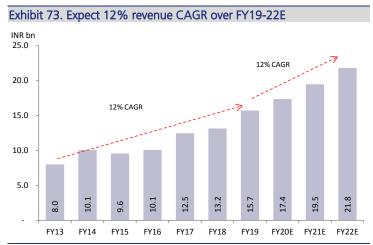
As seen in Exhibit 72:

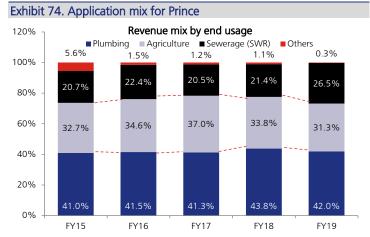
- Prince has the **highest RoEs** in the industry (23.2% in FY19)
- Prince has the **second highest** cash conversion in the industry after Finolex Industries
- Prince has turn net cash in FY20 post Initial Public Offer (Dec'19)
- Prince has shown significant improvement in net working capital days and was at par with peers by FY19
- Prince has the highest asset turnover among peers

Exhibit 72. Operating met	rics compariso	on with peer	'S							
Particulars	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY13-19	FY13-15	FY15-19
RoCE										
Prince Pipes	0.0%	13.7%	10.2%	12.0%	19.6%	16.1%	16.0%	12.5%	8.0%	14.8%
Supreme	27.2%	24.5%	24.0%	20.3%	23.0%	22.2%	19.1%	22.9%	25.2%	21.7%
Finolex	22.7%	23.4%	9.3%	23.8%	34.1%	24.7%	29.4%	23.9%	18.5%	24.2%
Astral	24.7%	26.0%	15.1%	15.8%	16.3%	17.1%	16.3%	18.8%	22.0%	16.1%
RoE										
Prince Pipes	0.0%	19.8%	10.7%	17.5%	34.8%	26.0%	23.2%	18.9%	10.2%	22.4%
Supreme	37.7%	31.8%	30.2%	25.1%	27.3%	24.9%	20.4%	28.2%	33.3%	25.6%
Finolex	31.0%	29.6%	7.9%	20.4%	18.3%	11.8%	13.9%	19.0%	22.8%	14.5%
Astral	28.5%	28.4%	16.2%	17.2%	18.7%	19.1%	17.8%	20.8%	24.4%	17.8%
CFO/EBITDA										
Prince Pipes	22%	12%	149%	88%	59%	98%	118%	78.1%	61.5%	102.4%
Supreme	76%	55%	90%	64%	61%	64%	71%	68.8%	73.8%	70.1%
Finolex	76%	62%	101%	140%	40%	273%	75%	109.5%	79.5%	125.6%
Astral	56%	43%	70%	109%	43%	89%	89%	71.3%	56.3%	79.9%
Net Debt/Equity										
Prince Pipes	2.6	2.5	1.9	1.6	1.3	1.1	0.7			
Supreme	0.6	0.5	0.2	0.3	0.1	0.1	0.1			
Finolex	1.2	0.9	0.8	0.1	0.0	0.0	0.0			
Astral	0.3	0.4	0.3	0.2	0.3	0.1	0.1			
Net working capital days										
Prince Pipes	96	104	95	87	90	79	55			
Supreme	35	42	34	55	49	43	38			
Finolex	58	65	61	33	54	54	49			
Astral (SA)	-12	19	30	23	55	47	38			
Asset Turnover (Gross Block)										
Prince Pipes	2.6	3.1	2.7	2.6	2.9	3.0	3.5	2.9	2.8	2.9
Supreme	2.4	2.4	2.4	1.5	2.1	2.1	2.1	2.1	2.4	2.0
Finolex	1.3	1.3	1.3	1.7	2.8	1.8	1.5	1.7	1.3	1.8
Astral (SA)	3.5	3.4	3.3	3.3	3.3	3.0	2.7	3.2	3.4	3.1

Financial Outlook

We expect Prince to post revenue CAGR of c.12% in FY19-22E (12% CAGR in FY13-19): Prince reported revenue CAGR of 12% over FY13-19 driven by a) increasing share of CPVC products (20% in FY19 vs. 15% in FY15 – recorded 21% CAGR over FY15-19) and b) increasing share of SWR pipes. We expect Prince to post 12% revenue CAGR over FY19-22 on the back of a) capacity expansion in Rajasthan (brownfield; started in Sep'19) and Telangana (greenfield; expected to commence in FY22), b) robust growth in sales of PVC pipes and fittings, partly led by industry consolidation and c) higher realisations in CPVC (due to higher raw material costs).

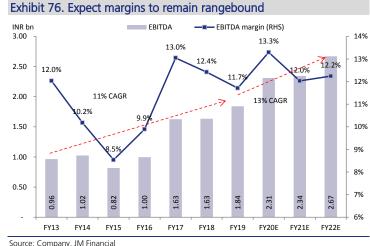




Source: Company, JM Financial Source: Company, JM Financial

Expect stable operating margin performance: Gross margins are a function of a) product mix (typically CPVC is higher margin product; plumbing enjoys higher margin than agriculture pipes) and b) raw material prices (rising RM prices lead to inventory gains and vice-versa). Gross margins during FY13-19 showed a significant 230bps improvement, despite volatility in the interim, on the back of an improved product mix. However, for most of this improvement, the company had to invest in brand building (from 1% in FY13 to 2.8% of revenue in FY19). As a result, EBITDA margins were stable around 11.7%.



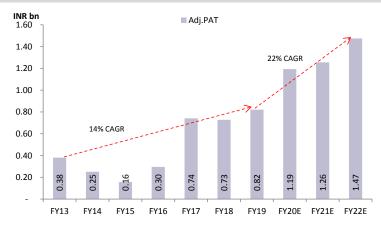


We expect gross margins to remain stable at 28% (FY20 gross margins are higher due to lower cost CPVC inventories) as the product mix remains broadly similar, while EBITDA margins are likely to improve by c.50bps. We expect higher EBITDA margins of FY20 (led by inventory gains on CPVC inventories during the period of transition, after Anti-Dumping Duty imposition on 26Aug'19) to normalise in FY21/22. We expect Prince to deliver 13% EBITDA CAGR over FY19-22E.

12 February 2020 Prince Pipes and Fittings

Estimate 22% CAGR in PAT over FY19-22E: Prince posted net profit CAGR at 14%% over FY13-19 (52% in FY15-19) led by stable operating margins performance. We estimate Prince to record 22% CAGR in PAT over FY19-22 on the back of a) steady operating profit growth, b) lower interest cost and higher other income (internal accruals and IPO proceeds used for debt repayment), and c) lower tax rate (as the company adopted new concessional tax regime). Note that FY20 profit growth is significant (c.45% YoY) on account of CPVC inventory benefits as well as a lower tax rate.



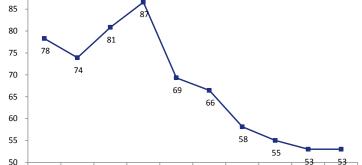


Source: Company, JM Financial

Significant improvement in working capital management: Prince's working capital days rose from 96 to 104 in FY14 on account of a reduction in creditors. However, these reduced to 55 days (FY19) as the company a) tightened receivables and utilised channel financing (able to use ongoing consolidation effectively) and b) optimised inventories, while it also got extended credit from vendors. Inventory days increased sharply in FY18 (67 days) due to a rise in PVC prices coupled with low revenue growth (5% in FY18) which was normalised in FY19 (47 days).

We estimate working capital to remain range-bound as improvement in receivables (on account of tighter control, leveraging the on-going consolidation) is partially offset by lower credit days (possible change in vendor mix and higher cash at disposal can be used to take discounts). Prince has tactically adopted channel financing strategy (INR 0.7bn in FY19) as it is on full recourse basis.

 Debtor days 90 85 80



FY17

FY18

FY19

FY20E

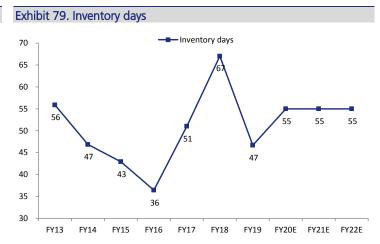
FY21E FY22E

Source: Company, JM Financial

FY14

FY13

Exhibit 78. Debtor days



Source: Company, JM Financial

FY15

FY16

Exhibit 80. Trade Payable days

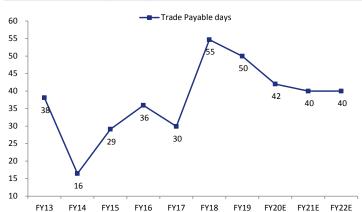
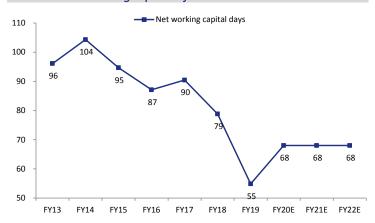


Exhibit 81. Net working capital days

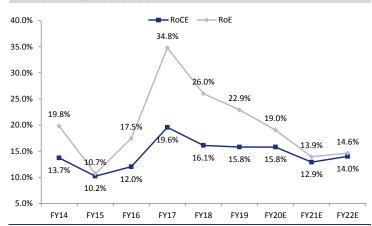


Source: Company, JM Financial

Source: Company, JM Financial

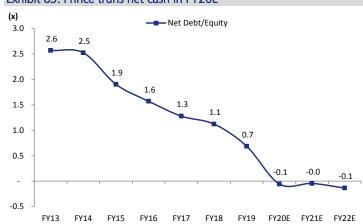
■ Strong return profile in past; IPO proceeds and investments in new capacities to temporarily create strain on the return ratios: Prince has reported significant improvement in RoCEs over FY15-19 due to better margins and working capital cycle. After the IPO (Dec'19), Prince has become a net cash company. The return profile gets weaker in FY21 on account of IPO proceeds (higher net worth), which is being invested in capacity expansion (the benefit of this expansion will be fully reflected post FY22).

Exhibit 82. Return ratios trend



Source: Company, JM Financial

Exhibit 83. Prince truns net cash in FY20E



Source: Company, JM Financial

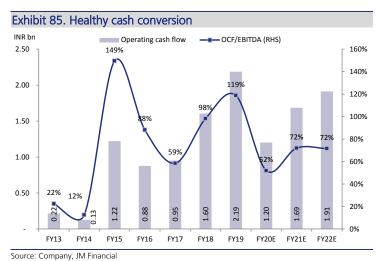
Exhibit 84. Prince had o	Exhibit 84. Prince had one of the best RoEs in the industry											
Particulars	FY15	FY16	FY17	FY18	FY19							
RoE												
Prince Pipes	10.7%	17.5%	34.8%	26.0%	23.2%							
Supreme	30.2%	25.1%	27.3%	24.9%	20.4%							
Finolex	7.9%	20.4%	18.3%	11.8%	13.9%							
Astral	16.2%	17.2%	18.7%	19.1%	17.8%							

Source: Company, JM Financial

 Prince has been FCF positive since FY15: Except FY13/14 (significant increase in working capital), Prince has been Free Cash Flow positive on strong operating cash flow due to robust profitability and consistent reduction in net working capital cycle.

We expect Prince to post strong OCF as it maintains tight control over receivables and tactically use channel financing for reduction in working capital days. Company incurred a total capex of INR 4.5bn over FY13-19 as it increased its capacity aggressively at the

Chennai, Haridwar plants and greenfield capacity at Jaipur. Prince is also setting up new manufacturing plant in Sangareddy (Telangana) (total estimated installed capacity: 51,943 tonnes p.a.) for which it will be incurring a capex of c.INR 2bn over FY20-21E. Despite this high capex, we expect it to remain FCF positive over FY20E-22E due to healthy cash conversion (north of 60% over FY20E-22E).





Source: Company, JM Financial

Exhibit 87. Prince has high cash conversion vs. the other large players									
Particulars	FY15	FY16	FY17	FY18	FY19	FY15-19			
OCF/EBITDA (Co level)									
Prince Pipes	149%	88%	59%	98%	118%	102%			
Supreme	90%	64%	61%	64%	71%	70%			
Finolex	101%	140%	40%	273%	75%	126%			
Astral	70%	109%	43%	89%	89%	80%			

Recent Financial Performance

3QFY20 summary: Prince's revenue grew 10% YoY to INR 3.96bn, led by volume (+5% YoY) and realisation (+4%). Gross profit grew 27% YoY, led by 450bps improvement in gross margins on account of higher realisation and product mix. EBITDA grew 23%, as margins expanded 150bps YoY. PBT grew 18% YoY while PAT grew 41% YoY on lower tax rate (as company has adopted new concessional tax regime).

9MFY20 summary: Revenue grew 12% YoY, led by volume growth (+11%). Gross margins up 290bps YoY to 31.4% while EBITDA margins rose 250bps to 14.2%. EBITDA and PBT grew 36%/55% YoY respectively. PAT up 61% YoY to INR 842mn, surpassing its FY19 PAT in 9MFY20.

Prince has paid INR 76.5mn as provisional anti dumping duty on imports of CPVC resins (imported from China and Korea during Aug-Dec'19), which has been accounted as 'receivable', based on legal advice. We have not adjusted the same in following exhibits.

Exhibit 88. 3QFY20/9MFY20	xhibit 88. 3QFY20/9MFY20 Quarterly Performance												
INR mn	3Q19	3Q20	YoY	2Q20	QoQ	9MFY19	9MFY20	YoY					
Net Sales	3,610	3,959	10%	4,292	-8%	10,729	12,049	12%					
Volume (tonnes)	29,624	31,122	5%	34,553	-10%	89,540	99,675	11%					
Realisation (INR/kg)	122	127	4%	124	2%	120	121	1%					
Raw Material Cost	2,597	2,670	3%	2,912	-8%	7,679	8,270	8%					
Gross Profit	1,012	1,289	27%	1,381	-7%	3,050	3,779	24%					
Gross Margin	28.0%	32.6%	450 bps	32.2%	40 bps	28.4%	31.4%	290 bps					
Employee cost	190	223	17%	210	6%	560	631	13%					
% of sales	5.3%	5.6%	40 bps	4.9%	70 bps	5.2%	5.2%	0 bps					
Other expenses	390	533	37%	520	2%	1,233	1,437	17%					
% of sales	10.8%	13.5%	260 bps	12.1%	130 bps	11.5%	11.9%	40 bps					
Total expense	3,177	3,426	8%	3,641	-6%	9,471	10,338	9%					
EBITDA	432	533	23%	651	-18%	1,258	1,711	36%					
EBITDA margin	12.0%	13.5%	150 bps	15.2%	-170 bps	11.7%	14.2%	250 bps					
Depreciation	109	133	22%	124	7%	322	376	17%					
EBIT	323	400	24%	526	-24%	935	1,336	43%					
Other Income	40	8	-81%	6	31%	52	18	-66%					
PBIT	363	408	12%	532	-23%	987	1,353	37%					
Interest	92	89	-3%	86	4%	274	250	-9%					
XO Exp/-Inc	0	0		0		0	0						
PBT	271	319	18%	447	-29%	714	1,104	55%					
Tax Expense	99	76	-23%	113	-32%	191	261	37%					
Tax Rate	36.4%	23.9%	-1260 bps	25.2%	-130 bps	26.8%	23.7%	-310 bps					
Reported Net Profit	172	243	41%	334	-27%	522	842	61%					
Adjusted Net Profit	172	243	41%	334	-27%	522	842	61%					

INR mn	3Q19	3Q20	YoY	9MFY19	9MFY20	YoY
Revenue						
Prince	3,610	3,959	10%	10,729	12,049	12%
Astral	4,884	5,200	6%	12,703	15,371	21%
Supreme (Pipes)	7,997	7,984	0%	22,297	25,079	12%
Finolex (Pipes)	5,906	5,535	-6%	17,837	19,218	8%
Volume (000 tonne)						
Prince	29.6	31.1	5%	89.5	99.7	11%
Astral	27.9	32.1	15%	77.6	98.4	27%
Supreme (Pipes)	70.0	70.4	1%	196.3	223.5	14%
Finolex (Pipes)	59.2	52.8	-11%	182.1	192.5	6%
Realisation (INR/kg)						
Prince	121.9	127.2	4%	119.8	120.9	1%
Astral	175.2	162.2	-7%	163.7	156.2	-5%
Supreme (Pipes)	114.2	113.4	-1%	113.6	112.2	-1%
Finolex (Pipes)	99.8	104.8	5%	98.0	99.8	2%
EBITDA						
Prince	432	533	23%	1,258	1,711	36%
Astral	785	999	27%	2,088	2,729	31%
Supreme (Pipes)	992	1,276	29%	2,861	3,627	27%
Finolex (Pipes)	566	541	-4%	1,601	1,714	7%
EBITDA Margin						
Prince	12.0%	13.5%	150 bps	11.7%	14.2%	250 bps
Astral	16.1%	19.2%	310 bps	16.4%	17.8%	130 bps
Supreme (Pipes)	12.4%	16.0%	360 bps	12.8%	14.5%	160 bps
Finolex (Pipes)	9.6%	9.8%	20 bps	9.0%	8.9%	-10 bps
EBITDA (INR/kg)						
Prince	14.6	17.1	17%	14.0	17.2	22%
Astral	28.1	31.2	11%	26.9	27.7	3%
Supreme (Pipes)	14.2	18.1	28%	14.6	16.2	11%
Finolex (Pipes)	9.6	10.2	7%	8.8	8.9	1%

Management Profile

Exhibit 90. Manageme	xhibit 90. Management Profile					
Name	Designation	Age	Description			
Jayant Shamji Chheda	Chairman and Managing Director	73	He is the promoter of the Company and has over three decades of experience in the plastic industry. He has passed the Senior Secondary Certificate Examination and was awarded with 'Lifetime Achievement Award' at the Vinyl India Conference, 2014 for his extensive contribution to the piping industry.			
Parag Jayant Chheda	Executive Director	48	He is elder son of Jayant Chheda and has been associated with the Company as a director since Apr'96. He holds an associate degree in business administration from Oakland Community College and has over 21 years of experience in the piping industry. He was awarded with 'Inspiring Business Leader Award' at the Economic Times Summit, 2016 for the 'Business and Industry' sector.			
Vipul Jayant Chheda	Executive Director	44	He is younger son of Jayant Chheda and has been associated with the Company as a director since Mar'97. He holds a higher secondary certificate from the Maharashtra State Board and has over 20 years of experience in the piping industry.			
Shyam Kishanchand Sharda	Chief Financial Officer	48	He is an associate member of the Institute of Chartered Accountants of India and has been associated with the Company since Jan'15 (CFO since Feb'16). He has previously worked with S. Kumar Nationwide Limited as senior Vice President-Finance & group accounts, United Phosphorus Limited as Deputy General Manager-Finance. He has approximately 20 years of experience in the field of finance, accounts and taxation. He also holds a bachelor's degree in commerce from Jodhpur (Rajasthan) University.			
Pravin Jogani	Company Secretary and Compliance Officer	35	He joined the Company in Dec'19 as a Senior Manager (Secretarial). He holds a bachelor's degree in law examination held by University of Mumbai. He is a fellow member of the Institute of Company Secretaries of India and has previously worked with NRB Industrial Bearings Limited, Raymond Limited and L&T Finance Limited. He has over 8 years of experience in the field of secretarial and compliance.			
Hemant Kumar	VP- Sales and Marketing	61	He has been employed with the Company since Apr'06 and has over 30 years of experience in the field of marketing. He holds a bachelor's degree in science from University of Poona and a diploma in marketing management from the Symbiosis Institute of Management. He has previously worked with Varsha Agro Plast Private Limited as a Sales Manager and has several years of experience in the field of marketing.			
Ashok Mehra	VP- Sales and Marketing	53	He has several years of experience in the field of sales & marketing and has recently joined the Company in Apr'17. He holds a bachelor's degree in engineering (mechanical) and a master's degree in marketing management from Mumbai University. He has previously worked with Jaquar & Company Private Limited as a General Manager, Pidilite Industries Limited as Team Head, Sherwin-Williams Paints India Private Limited as Director-Sales, and Birla Yamaha Limited as Area Sales Manager.			
Prakash Hegde	Head- HR and Admin	51	He has been employed with Prince since June 3, 2013. He holds a diploma degree in Labour law (Hons.) from Bharatratna Dr. Babasaheb Ambedkar Institute of Management and Legal Research and a postgraduate certificate in human resource management from Xavier School of Management. He has completed the part-time executive programme in human resource management from Indian Institute of Management, Lucknow. He holds a master's degree in of social work from Shivaji University, Kolhapur. He has previously worked with TBZ Limited as group head- H.R & admin and Bharat Gears Limited as group head- H.R and P&A. He has several years of experience in the field of HR and administration functions.			
Umesh Pillai	National Head- Trubore	45	He has been employed with our Company since June'19 and holds a post graduate diploma in business management from SVKM's NMIMS University and bachelor's degree in electrical engineering from Sambalpur University. He has previously worked with PPG Asian Paints Pvt Ltd and Godrej and Boyce Mfg Co. Ltd. He has several years of experience in the field of sales and marketing.			
Vinender Singh Baweja	Chief Operating Officer	39	He has been employed with the Company since July'19 and holds a bachelor of engineering degree from Punjab Technical University and MBA from IIT, Roorkee. He has previously worked with Eicher Motors Ltd and Hindustan Unilever Ltd. He has over 16 years of experience in the field of information technology.			

Annexure

Exhibit 91. Regional demand mix for Pipes industry; Prince present in all major markets



Exhibit 92. Building !	Exhibit 92. Building Materials Relative Valuation																	
INR mn	Mkt. Cap.	СМР	TP	Upside	Target P/E	Rating		P/E(x)		EV	/EBITDA(x)	ı	ROE(%)		FY19-22E C	AGR	FY22E
IIVIX IIIII	(INR bn)	CIVIF		Opside	P/E	Naurig	FY20E	FY21E	FY22E	FY20E	FY21E	FY22E	FY20E	FY21E	FY22E	EBITDA	EPS	PEG
Plastics																		
Prince Pipes	20	179	240	34%	18	BUY	16.5	15.7	13.4	8.3	8.2	6.8	19%	14%	15%	13%	22%	0.6
Astral Polytechnik*	182	1,211				NR	59.7	47.9	38.4	37.5	31.6	26.5	20%	21%	22%	22%	34%	1.1
Supreme Industries*	177	1,390				NR	36.4	31.1	26.3	21.6	18.6	16.3	22%	22%	23%	12%	14%	1.8
Finolex Industries*	68	545				NR	16.9	14.8	12.7	11.9	9.9	8.8	15%	16%	17%	7%	15%	0.8
India Median							26.6	23.4	19.8	16.7	14.2	12.5	20%	18%	19%	12%	18%	1.0
Ceramics/Sanitary Ware																		
Kajaria Ceramics	87	547	600	10%	27	HOLD	32.2	28.9	24.8	19.4	16.4	14.1	16%	16%	18%	8%	15%	1.7
Somany Ceramics	14	221	290	31%	15	BUY	15.7	11.6	9.3	7.3	5.9	4.9	10%	12%	13%	14%	22%	0.4
Cera Sanitaryware	33	2,511	3,000	19%	25	HOLD	27.3	24.3	20.9	16.9	15.2	13.7	16%	16%	16%	6%	11%	2.0
India Median							27.3	24.3	20.9	16.9	15.2	13.7	16%	16%	16%	8%	15%	1.7
Wood Panel																		
Century Plyboard	36	164	190	16%	20	HOLD	18.2	17.2	16.9	10.6	10.0	9.7	19%	18%	16%	11%	8%	2.0
Greenply Industries	17	138	170	23%	15	HOLD	14.7	13.0	11.8	9.5	8.4	7.3	29%	25%	22%	15%	22%	0.5
Greenlam Industries	23	956	1,200	26%	22	BUY	25.5	20.6	17.6	13.8	11.9	10.4	19%	20%	20%	14%	19%	0.9
Greenpanel Industries	7	57	55	-3%	15	HOLD	50.6	16.0	10.6	9.8	6.6	4.9	2%	6%	9%	32%	41%	0.3
India Median							21.8	16.6	14.4	10.2	9.2	8.5	19%	19%	18%	14%	21%	0.7

Source: Company, JM Financial, Bloomberg *Astral, Supreme and Finolex numbers are based on Bloomberg consensus

Financial Tables

Income Statement				(INR mn)
Y/E March	FY18A	FY19A	FY20E	FY21E	FY22E
Net Sales	13,150	15,719	17,377	19,481	21,819
Sales Growth	5.5%	19.5%	10.6%	12.1%	12.0%
Other Operating Income	0	0	0	0	0
Total Revenue	13,150	15,719	17,377	19,481	21,819
Cost of Goods Sold/Op. Exp	9,214	11,274	12,077	13,832	15,492
Personnel Cost	726	783	877	983	1,100
Other Expenses	1,577	1,821	2,113	2,324	2,556
EBITDA	1,633	1,841	2,310	2,343	2,671
EBITDA Margin	12.4%	11.7%	13.3%	12.0%	12.2%
EBITDA Growth	0.4%	12.7%	25.5%	1.4%	14.0%
Depn. & Amort.	381	436	516	606	715
EBIT	1,252	1,405	1,794	1,737	1,956
Other Income	60	71	87	160	135
Finance Cost	361	363	300	219	120
PBT before Excep. & Forex	952	1,113	1,580	1,679	1,972
Excep. & Forex Inc./Loss(-)	0	0	0	0	0
PBT	952	1,113	1,580	1,679	1,972
Taxes	224	292	387	423	497
Extraordinary Inc./Loss(-)	0	0	0	0	0
Assoc. Profit/Min. Int.(-)	0	0	0	0	0
Reported Net Profit	728	821	1,193	1,256	1,475
Adjusted Net Profit	728	821	1,193	1,256	1,475
Net Margin	5.5%	5.2%	6.9%	6.4%	6.8%
Diluted Share Cap. (mn)	90.0	90.0	110.0	110.0	110.0
Diluted EPS (INR)	8.1	9.1	10.8	11.4	13.4
Diluted EPS Growth	-51.0%	12.9%	18.8%	5.3%	17.4%
Total Dividend + Tax	0	0	242	275	308
Dividend Per Share (INR)	0.0	0.0	2.2	2.5	2.8

ource:	Company,	JM	Financial
--------	----------	----	-----------

Cash Flow Statement				(INR mn)
Y/E March	FY18A	FY19A	FY20E	FY21E	FY22E
Profit before Tax	953	1,113	1,580	1,679	1,972
Depn. & Amort.	369	436	516	606	715
Net Interest Exp. / Inc. (-)	314	329	214	59	-15
Inc (-) / Dec in WCap.	37	611	-722	-234	-262
Others	95	3	0	0	0
Taxes Paid	-163	-305	-387	-423	-497
Operating Cash Flow	1,605	2,186	1,201	1,686	1,912
Capex	-1,037	-834	-1,085	-1,400	-600
Free Cash Flow	568	1,353	116	286	1,312
Inc (-) / Dec in Investments	1	0	0	0	0
Others	-667	-217	87	160	135
Investing Cash Flow	-1,703	-1,051	-998	-1,240	-465
Inc / Dec (-) in Capital	0	0	3,560	0	0
Dividend + Tax thereon	0	0	-242	-275	-308
Inc / Dec (-) in Loans	425	-689	-482	-1,000	-800
Others	-352	-360	-300	-219	-120
Financing Cash Flow	73	-1,049	2,536	-1,494	-1,228
Inc / Dec (-) in Cash	-25	87	2,739	-1,047	220
Opening Cash Balance	124	96	223	2,962	1,914
Closing Cash Balance	99	183	2,962	1,914	2,134

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY18A	FY19A	FY20E	FY21E	FY22E
Shareholders' Fund	3,166	4,008	8,519	9,499	10,666
Share Capital	900	900	1,100	1,100	1,100
Reserves & Surplus	2,266	3,108	7,418	8,399	9,566
Preference Share Capital	0	0	0	0	0
Minority Interest	0	0	0	0	0
Total Loans	3,646	2,969	2,487	1,487	687
Def. Tax Liab. / Assets (-)	127	135	135	135	135
Total - Equity & Liab.	6,939	7,112	11,141	11,122	11,489
Net Fixed Assets	3,593	4,311	4,880	5,674	5,559
Gross Fixed Assets	4,111	4,770	5,770	6,470	7,970
Intangible Assets	0	0	0	0	0
Less: Depn. & Amort.	665	1,074	1,590	2,196	2,911
Capital WIP	147	615	700	1,400	500
Investments	7	8	8	8	8
Current Assets	6,198	6,085	9,547	9,027	9,938
Inventories	2,415	2,011	2,618	2,936	3,288
Sundry Debtors	2,394	2,504	2,618	2,829	3,168
Cash & Bank Balances	96	223	2,962	1,914	2,134
Loans & Advances	1,293	1,348	1,348	1,348	1,348
Other Current Assets	0	0	0	0	0
Current Liab. & Prov.	2,860	3,292	3,292	3,586	4,016
Current Liabilities	1,970	2,152	2,000	2,135	2,391
Provisions & Others	890	1,140	1,293	1,451	1,625
Net Current Assets	3,339	2,793	6,254	5,441	5,922
Total – Assets	6,939	7,112	11,141	11,122	11,489

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY18A	FY19A	FY20E	FY21E	FY22E
Net Margin	5.5%	5.2%	6.9%	6.4%	6.8%
Asset Turnover (x)	2.1	2.2	1.9	1.8	1.9
Leverage Factor (x)	2.3	2.0	1.5	1.2	1.1
RoE	26.0%	22.9%	19.0%	13.9%	14.6%
Key Ratios					
Y/E March	FY18A	FY19A	FY20E	FY21E	FY22E
BV/Share (INR)	35.2	44.5	77.4	86.3	96.9
ROIC	15.7%	15.4%	18.3%	15.2%	16.0%
ROE	26.0%	22.9%	19.0%	13.9%	14.6%
Net Debt/Equity (x)	1.1	0.7	-0.1	0.0	-0.1
P/E (x)	22.1	19.6	16.5	15.7	13.4
P/B (x)	5.1	4.0	2.3	2.1	1.8
EV/EBITDA (x)	14.2	12.2	8.3	8.2	6.8
EV/Sales (x)	1.8	1.4	1.1	1.0	0.8
Debtor days	66	58	55	53	53
Inventory days	67	47	55	55	55
Creditor days	62	57	48	45	46

APPENDIX I

JM Financial Institutional Securities Limited

(formerly known as JM Financial Securities Limited)

Corporate Identity Number: U67100MH2017PLC296081

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

Definition of ra	atings
Rating	Meaning
Buy	Total expected returns of more than 15%. Total expected return includes dividend yields.
Hold	Price expected to move in the range of 10% downside to 15% upside from the current market price.
Sell	Price expected to move downwards by more than 10%

Research 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.

Important Disclosures

This research report has been prepared by JM Financial Institutional Securities Limited (JM Financial Institutional Securities) 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 associates 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 JM Financial Institutional Securities. This report has been prepared independent of the companies covered herein.

JM Financial Institutional Securities is registered with the Securities and Exchange Board of India (SEBI) as a Research Analyst and a Stock Broker having trading memberships of the BSE Ltd. (BSE), National Stock Exchange of India Ltd. (NSE) and Metropolitan Stock Exchange of India Ltd. (MSEI). No material disciplinary action has been taken by SEBI against JM Financial Institutional Securities in the past two financial years which may impact the investment decision making of the investor.

JM Financial Institutional Securities renders stock broking services primarily to institutional investors and provides the research services to its institutional clients/investors. JM Financial Institutional Securities and its associates are part of a multi-service, integrated investment banking, investment management, brokerage and financing group. JM Financial Institutional Securities and/or its associates might have provided or may provide services in respect of managing offerings of securities, corporate finance, investment banking, mergers & acquisitions, broking, financing or any other advisory services to the company(ies) covered herein. JM Financial Institutional Securities and/or its associates might have received during the past twelve months or may receive compensation from the company(ies) mentioned in this report for rendering any of the above services.

JM Financial Institutional Securities and/or its associates, 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) covered under this report or (c) act as an advisor or lender/borrower to, or may have any financial interest in, such company(ies) or (d) considering the nature of business/activities that JM Financial Institutional Securities is engaged in, it may have potential conflict of interest at the time of publication of this report on the subject company(ies).

Neither JM Financial Institutional Securities nor its associates or the Research Analyst(s) named in this report or his/her relatives individually own one per cent or more securities of the company(ies) covered under this report, at the relevant date as specified in the SEBI (Research Analysts) Regulations, 2014.

The Research Analyst(s) principally responsible for the preparation of this research report and members of their household are prohibited from buying or selling debt or equity securities, including but not limited to any option, right, warrant, future, long or short position issued by company(ies) covered under this report. The Research Analyst(s) principally responsible for the preparation of this research report or their relatives (as defined under SEBI (Research Analysts) Regulations, 2014); (a) do not have any financial interest in the company(ies) covered under this report or (b) did not receive any compensation from the company(ies) covered under this report, or from any third party, in connection with this report or (c) do not have any other material conflict of interest at the time of publication of this report. Research Analyst(s) are not serving as an officer, director or employee of the company(ies) covered under this report.

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 JM Financial Institutional Securities does not warrant its accuracy or completeness. JM Financial Institutional Securities 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 or recommendations/opinions given 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 JM Financial Institutional Securities reserves the right to make modifications and alterations to this statement as they may deem fit from time to time.

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 JM Financial Institutional Securities 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.

Persons who receive this report from JM Financial Singapore Pte Ltd may contact Mr. Ruchir Jhunjhunwala (ruchir.jhunjhunwala@jmfl.com) on +65 6422 1888 in respect of any matters arising from, or in connection with, this report.

Additional disclosure only for U.S. persons: JM Financial Institutional Securities has entered into an agreement with JM Financial Securities, Inc. ("JM Financial Securities"), a U.S. registered broker-dealer and member of the Financial Industry Regulatory Authority ("FINRA") in order to conduct certain business in the United States in reliance on the exemption from U.S. broker-dealer registration provided by Rule 15a-6, promulgated under the U.S. Securities Exchange Act of 1934 (the "Exchange Act"), as amended, and as interpreted by the staff of the U.S. Securities and Exchange Commission ("SEC") (together "Rule 15a-6").

This research report is distributed in the United States by JM Financial Securities in compliance with Rule 15a-6, and as a "third party research report" for purposes of FINRA Rule 2241. In compliance with Rule 15a-6(a)(3) this research report is distributed only to "major U.S. institutional investors" as defined in Rule 15a-6 and is not intended for use by any person or entity that is not a major U.S. institutional investor. If you have received a copy of this research report and are not a major U.S. institutional investor, you are instructed not to read, rely on, or reproduce the contents hereof, and to destroy this research or return it to JM Financial Institutional Securities or to JM Financial Securities.

This research report is a product of JM Financial Institutional Securities, which is the employer of the research analyst(s) solely responsible for its content. The research analyst(s) preparing this research report is/are resident outside the United States and are not associated persons or employees of any U.S. registered broker-dealer. Therefore, the analyst(s) are not subject to supervision by a U.S. broker-dealer, or otherwise required to satisfy the regulatory licensing requirements of FINRA and may not be subject to the Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

JM Financial Institutional Securities only accepts orders from major U.S. institutional investors. Pursuant to its agreement with JM Financial Institutional Securities, JM Financial Securities effects the transactions for major U.S. institutional investors. Major U.S. institutional investors may place orders with JM Financial Institutional Securities directly, or through JM Financial Securities, in the securities discussed in this research report.

Additional disclosure only for U.K. persons: Neither JM Financial Institutional Securities nor any of its affiliates is authorised in the United Kingdom (U.K.) by the Financial Conduct Authority. As a result, this report is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) in connection with the matters to which this report relates may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This report is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons.

Additional disclosure only for Canadian persons: This report is not, and under no circumstances is to be construed as, an advertisement or a public offering of the securities described herein in Canada or any province or territory thereof. Under no circumstances is this report to be construed as an offer to sell securities or as a solicitation of an offer to buy securities in any jurisdiction of Canada. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the registration requirement in the relevant province or territory of Canada in which such offer or sale is made. This report is not, and under no circumstances is it to be construed as, a prospectus or an offering memorandum. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence. If you are located in Canada, this report has been made available to you based on your representation that you are an "accredited investor" as such term is defined in National Instrument 45-106 Prospectus Exemptions and a "permitted client" as such term is defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada nor should it be construed as being tailored to the needs of the recipient. Canadian recipients are advised that JM Financial Securities, Inc., JM Financial Institutional Securities Limited, their affiliates and authorized agents are not responsible for, nor do they accept, any liability whatsoever for any direct or consequential lo