

FINOLEX INDUSTRIES

Initiating Coverage

September 2017

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FINOLEX INDUSTRIES

Leading PVC Pipes player with a Transformed business model at compelling valuations

CMP
Rs. 610

Target Price
Rs. 730

Rating
BUY



We initiate coverage on Finolex Industries (FIL) with a BUY rating. FIL is a leading player in the PVC pipes market in India with a market share of 13-14%. Finolex brand is a market leader in the Agri PVC pipes market and going ahead the focus is to improve its positioning in the housing/plumbing pipes segment with recent tie-up with Lubrizol (a leading CPVC compound manufacturer). We like FIL's integrated business model wherein it manufactures its own resin for production of its PVC pipes. The other large players in the PVC pipes market buy PVC resin from external sources. Integrated business model aids in higher margins and steady supply of raw material. Importantly, FIL commissioned the PVC resin plant in 1994 and at current high PVC:EDC spread, the plant is making pre-tax RoCE of 65%. FIL transformed its business model over the years in favor of value added PVC pipes from commoditized PVC resin.

In our view, the market has not yet fully priced in this superior execution of business transformation. The EBITDA profile is now more skewed towards valued added PVC pipes business (~70%) versus PVC resin business (23%). FIL stock still trades at a significant discount to its peers Astral (50% discount) and Supreme Industries (35% discount). This despite its market leading presence in PVC pipes segment, high margins profile, superior or on par cash flow/balance sheet/return ratio profile (refer slide no 28). We attribute 20x FY19E EPS, which is still at a 30-50% discount to its peers and attribute Rs.85/share towards its 14% investments in Finolex cables and 46% stake in Finolex Plasson to arrive at a target price of Rs.730/share, implying an upside of ~20% from current levels.

Investment thesis:

- **Market leader in Agri pipes:** Finolex is an undisputed market leader in Agriculture pipes segment (70% of PVC pipes by volumes) with a very strong brand recall among farmers for its product quality and aggressive pricing compared to competitors. Infact, despite lower margins prevalent in Agri pipes category compared to plumbing PVC/CPVC pipes, FIL has pioneered "Cash and carry" model which is reflected in its negligible receivables days (7 days). Going ahead, we expect Agri pipes segment to grow at 9-10% CAGR led by increased thrust of government on irrigation through PMKSY ("Pradhan mantri krishi Sinchayee yojana"), higher allocation towards irrigation and flood control by State government in FY17-18BE and better monsoon this year.
- **Focus on Housing/Plumbing pipes:** Currently only 30% of the Pipes segment revenues come from housing PVC segment. To increase its footprints in housing, FIL is adding new capacities aggressively over the next three years at a capex of Rs.3bn which will result in 50% increase in current Pipes capacity. Also, FIL has tied up with Lubrizol in FY17 to manufacture "Flowguard" pipes under its own brand which is a step in right direction as it can easily leverage its brand recall and distribution network (50% of its distributors are in rural areas) for plumbing pipes.
- **Improved business quality as plastic pipe segment accounts for bulk of its earnings:** We expect capacity addition will increase piping segment revenue and EBITDA contribution from 75% and 70% in FY17 to 94% and 89% by FY21E. This will also improve the business quality by lowering the earnings volatility present in resin business as almost 90% of the resin produced will be used internally for piping segment. Also, contrary to expectation of volatile earnings, backward integration will allow FIL to aggressively price its products to thwart competition and gain market share from unorganised players in plumbing piping segment.
- **Strong return ratios and cash flow profile warrants rerating in valuations:** FIL has strong return ratio profile of more than 20%. Also, we expect FIL to generate cumulative operating cash flow of Rs.13bn and free cash flow of Rs.10bn (Implied free cash flow yield of 5%) despite capacity addition over next three years. Given FIL has superior profitability due to its backward integration and further focusing on higher margin plumbing segment, strong return metrics, cash flow profile and high dividend yield (~2-3%), we expect the valuations discount of FIL to narrow going ahead compared to its peers.

Key risks: 1) Volatility in PVC- EDC spread 2) Persistent slowdown in plumbing PVC pipes leading lower utilizations at new capacities 3) Slow ramp up in CPVC pipes

INITIATING COVERAGE 25 September 2017

Industry	BUILDING MATERIALS		
Key Stock Data			
Bloomberg	FNXP IN		
Shares o/s	124mn		
Market Cap	Rs. 76bn		
52-wk High-Low	Rs. 693-381		
3m ADV	Rs. 200mn		
Index	BSE 500		
Latest shareholding (%)			
Promoters	52.3		
Institutions	13.3		
Public	34.4		
Stock performance (%)			
	1m	3m	12m
FNXP	2%	0%	30%
Sensex	1%	3%	12%

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Comp sheets

Company	Revenues (Rs. mn)			EBITDA (Rs. mn)			PAT (Rs. mn)			EPS (Rs.)			FY17-FY19E CAGR		
	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	Revenue	EBITDA	EPS
KJC	25,496	27,919	31,977	4,963	5,041	6,084	2,528	2,647	3,486	16	17	22	12%	11%	17%
SOMC	18,110	18,701	21,384	1,915	1,581	2,422	931	751	1,343	22	18	32	9%	12%	20%
CERA	10,066	11,282	13,094	1,716	1,838	2,255	992	1,098	1,397	76	84	107	14%	15%	19%
HSIL	20,750	23,960	28,022	2,893	3,200	3,713	1,030	1,066	1,169	14	15	16	16%	13%	7%
GIL	16,569	17,724	21,259	2,470	2,561	3,154	1,351	1,476	1,557	11	12	13	13%	13%	7%
CPBI	17,825	20,758	25,324	2,920	3,190	4,243	1,856	1,925	2,627	8	9	12	19%	21%	19%
ASTRAL	18,888	22,123	27,661	2,638	3,104	4,104	1,447	1,801	2,552	12	15	21	21%	25%	33%
SI	44,623	49,217	56,449	7,619	7,672	9,323	4,304	4,119	5,236	34	32	41	12%	11%	10%
FIL	26,024	27,584	30,632	5,630	5,665	6,091	3,522	3,657	4,013	28	29	32	8%	4%	7%

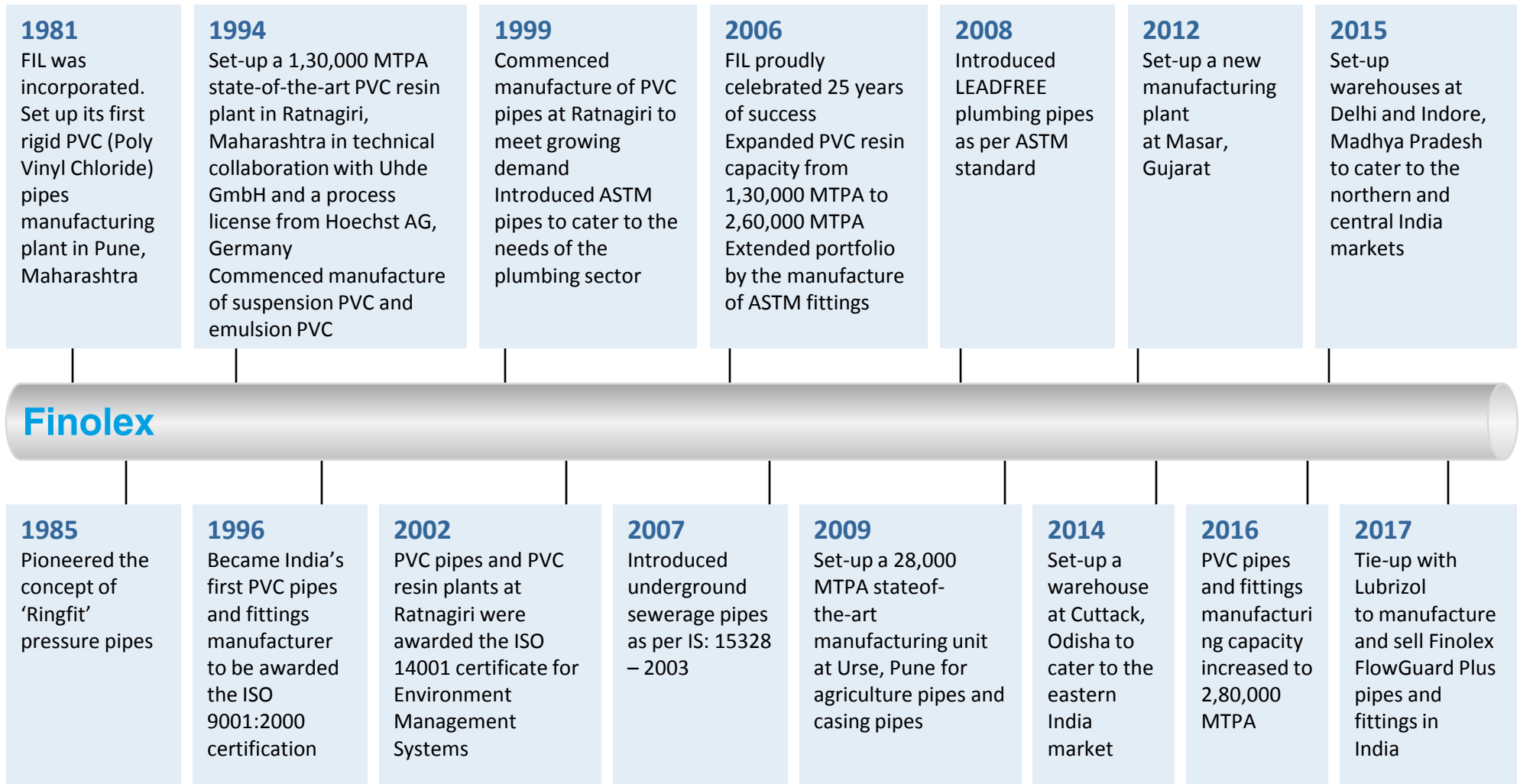
Company	EBITDA margins %			PBT margins %			PAT margins %			RoE%			RoCE%		
	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E
KJC	19.5%	18.1%	19.0%	15.5%	14.6%	16.7%	9.9%	9.5%	10.9%	23.6%	20.7%	23.0%	20.8%	19.7%	22.8%
SOMC	10.6%	8.5%	11.3%	8.2%	6.4%	9.7%	5.1%	4.0%	6.3%	19.6%	13.6%	19.6%	15.2%	11.6%	18.0%
CERA	17.0%	16.3%	17.2%	15.4%	14.8%	16.2%	9.9%	9.7%	10.7%	21.1%	19.4%	20.8%	18.7%	18.1%	20.1%
HSIL	13.9%	13.4%	13.3%	7.2%	5.9%	5.6%	5.0%	4.5%	4.2%	7.3%	7.2%	7.5%	5.7%	6.3%	7.0%
GIL	14.9%	14.5%	14.8%	11.5%	11.7%	9.8%	8.2%	8.3%	7.3%	19.3%	17.2%	15.6%	14.5%	11.9%	12.1%
CPBI	16.4%	15.4%	16.8%	13.1%	11.6%	13.0%	10.4%	9.3%	10.4%	30.1%	24.3%	26.6%	18.2%	16.0%	19.5%
ASTRAL	14.0%	14.0%	14.8%	10.8%	11.3%	12.8%	7.7%	8.1%	9.2%	18.6%	19.3%	22.4%	16.3%	17.1%	21.0%
SI	17.1%	15.6%	16.5%	13.1%	12.2%	13.2%	9.6%	8.4%	9.3%	28.6%	22.6%	24.5%	21.4%	19.0%	20.8%
FIL	21.6%	20.5%	19.9%	19.9%	19.5%	19.3%	13.5%	13.3%	13.1%	21.0%	19.6%	19.4%	17.4%	15.2%	15.5%

Company	CMP	MCAP	P/E (x)			EV/EBITDA (x)			Price to book (x)			Rating
	Rs.	Rs. bn	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	
KJC	723	114,960	45.6	43.5	33.0	23.5	23.0	18.8	9.8	8.3	7.0	ADD
SOMC	849	35,974	38.7	47.9	26.8	19.6	23.5	15.2	6.9	6.2	5.2	BUY
CERA	3,190	41,487	42.0	37.9	29.8	23.9	22.2	17.8	8.0	6.8	5.7	REDUCE
HSIL	382	27,610	26.7	25.8	23.5	11.9	11.2	9.7	1.9	1.8	1.7	REDUCE
GIL	269	33,017	24.5	22.4	21.3	13.3	12.7	11.2	4.2	3.6	3.1	BUY
CPBI	247	54,910	29.4	28.3	20.8	19.6	19.0	14.1	7.7	6.2	5.0	ADD
ASTRAL	733	87,819	60.9	48.9	34.5	34.1	28.7	21.5	10.4	8.6	7.0	ADD
SI	1,151	146,233	33.9	35.5	27.9	15.1	14.8	12.1	8.6	7.5	6.3	REDUCE
FIL	610	76,250	21.5	20.7	18.9	13.4	13.1	12.1	3.3	3.0	2.8	BUY

Company Background

Corporate Factsheet	
Company Background	<ul style="list-style-type: none"> Finolex India(FIL) setup its PVC resin plant in 1994 in Ratnagiri. Further, it forward integrated by setting up rigid PVC (Poly Vinyl Chloride) pipes manufacturing plant in Ratnagiri, Pune and Gujarat. Currently, FIL has total pipes capacity of 290Kt and PVC resin capacity of 272kt. FIL is a market leader in PVC Agri Pipes segment. FIL tied up with Lubrizol to manufacture CPVC pipes under “Flowguard” brand in FY17.
Presence	FIL has Pan India presence with higher sales concentration in West and South followed by North and East
Management depth	<ul style="list-style-type: none"> Mr. Prakash P Chhabria.– Chairman Mr. Sanjay S. Math – Managing Director Mr. Anil Wahbi – Chief Financial Officer
Revenue contribution	PVC pipes: 75%, PVC resin: 25%
Distribution network	Pipes: 800+ Distributors, 22,000+ Dealers Across India
Manufacturing Facilities	<ul style="list-style-type: none"> Ratnagiri, Maharashtra Urse, Maharashtra Masar, Gujarat
Credit Rating	Long term rating: CRISIL AA/Stable, Short term rating: CRISIL A1+
Corporate Bankers	Bank of India, ICICI Bank, Bank of Baroda, Citibank, Bank of Maharashtra, Corporation bank
Auditors	M/s. P. G. Bhagwat, Chartered Accountants, Pune

Journey over the years



Geographical Presence and Product Offering: PVC Resin business and PVC/CPVC Pipes

Business segments

PVC PIPES & FITTINGS (75%)	PVC RESIN (25%)	POWER PLANT (Captive consumption)
With 3 manufacturing plants having a combined capacity of 290,000 mtpa FIL offers a wide range of PVC pipe & fittings for diverse applications in agriculture and non-agriculture sectors including housing, industrial and construction.	With a capacity of 272,000 mtpa of PVC resin, backward integration gives FIL the unique advantage of a consistent quality and availability of raw material. With the rising internal consumption of PVC resin, FIL's business model is increasingly transforming to be B2C.	43 MW power plant at Ratnagiri (Maharashtra) is entirely for captive use and provides uninterrupted power to FIL's production facility there.

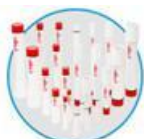
Source Company, Spark Capital

Products offered by Finolex Industries

Agricultural Pipes & Fittings- 70% of volumes



Agricultural pipes & fittings



Column pipes



Casing pipes



Solvent Cement

Plumbing & Sanitation Pipes & Fittings: 30% of volumes



ASTM Pipes & Fittings



CPVC Pipes & Fittings



Sewerage Pipes

Resin



PVC Resin

Source Company, Spark Capital

Plant locations and distribution reach

Masar, Gujarat
PVC Pipes: 60,000mt

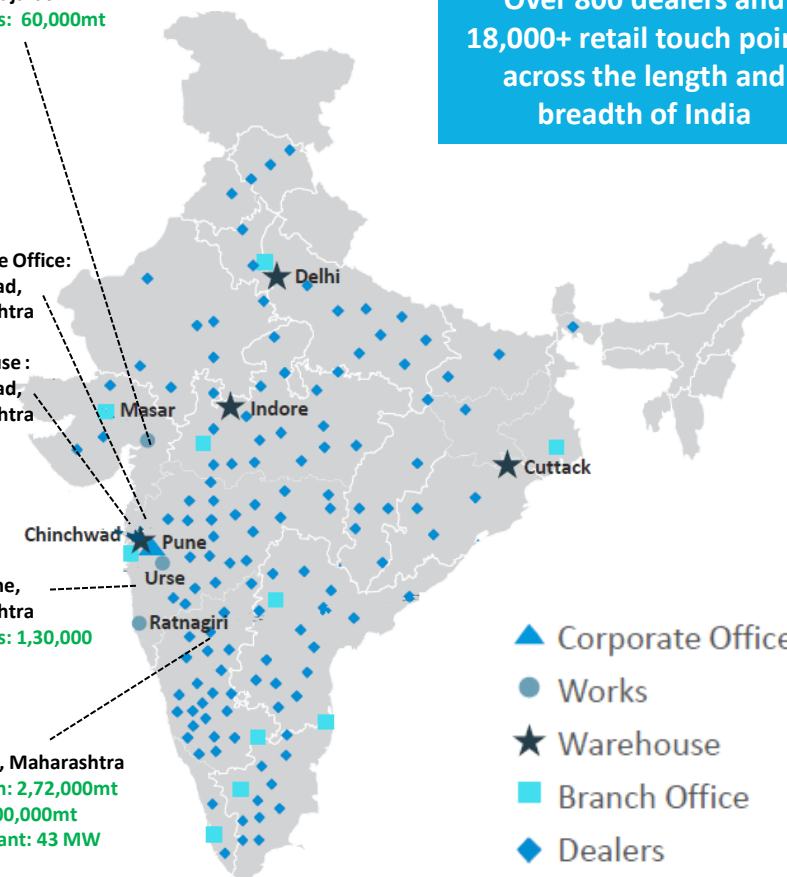
Corporate Office:
Chinchwad,
Maharashtra

Warehouse:
Chinchwad,
Maharashtra

Chinchwad
Urse, Pune,
Maharashtra
PVC Pipes: 1,30,000

Ratnagiri, Maharashtra
PVC Resin: 2,72,000mt
Pipes: 1,00,000mt
Power plant: 43 MW

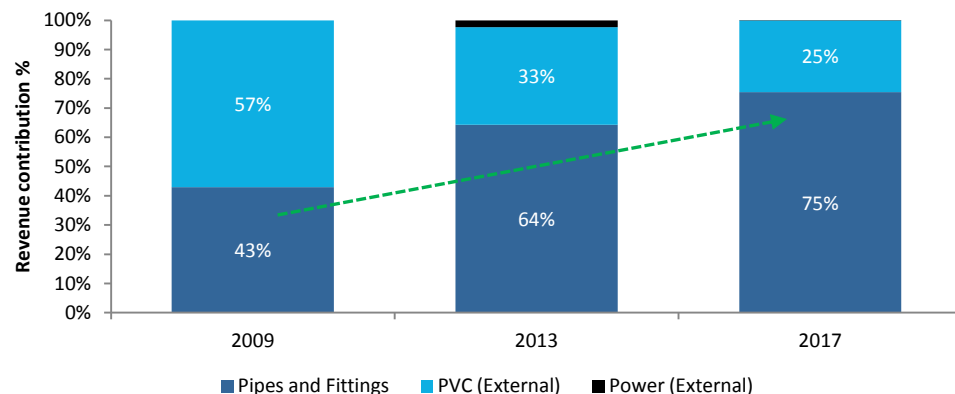
Over 800 dealers and
18,000+ retail touch points
across the length and
breadth of India



Source Company, Spark Capital

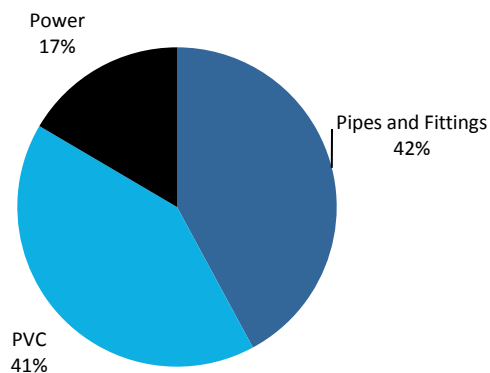
FIL's business transformation – Value added Pipes and Fittings business now contribute 75% of revenues and ~70% of EBITDA

Revenue mix – Increasing contribution from the value added Pipes & fittings business



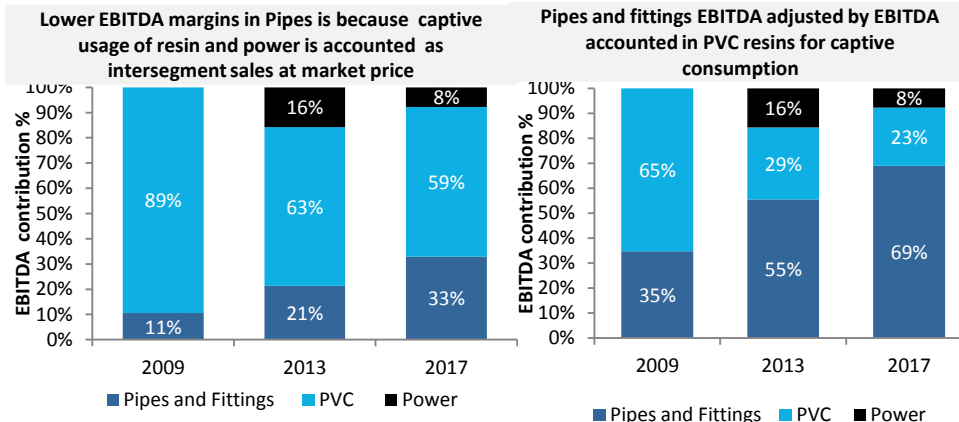
Source Company, Spark Capital

Capital employed FY17 – equally split between the PVC resin and Pipes business



Source Company, Spark Capital

EBITDA (adjusted for margins accounted in resin for captive consumption) from Pipes and fittings contributed 55% to overall EBITDA

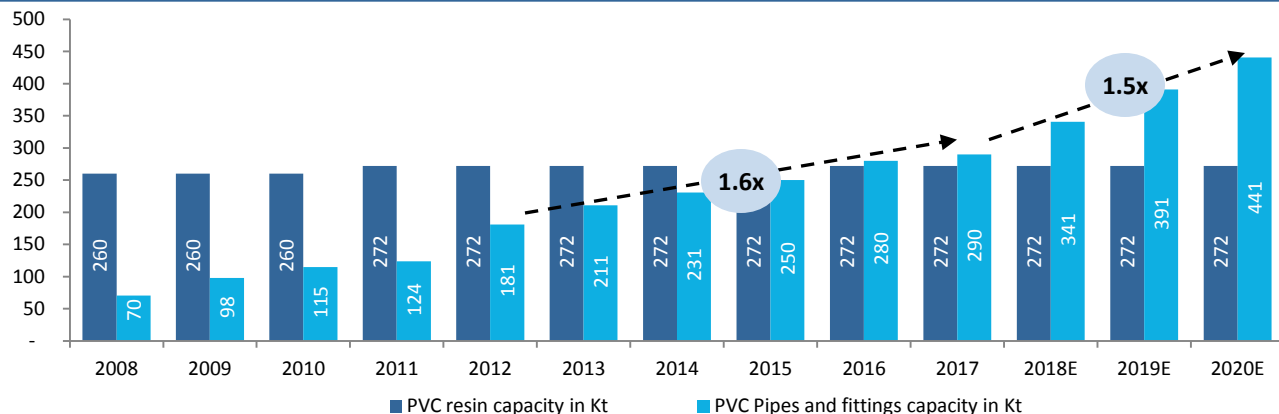


Finolex industries: Resin manufacturer to Pipes company

- FIL has an integrated business model wherein it manufactures its own resin for production of its PVC pipes. Integrated business model aids in higher margins and steady supply of raw material
- Contribution from external PVC resin sales has decreased from 57% in FY09 to 25% in FY17 as Finolex has expanded its Pipes capacity by 4x from 70,000mt in FY08 to 290,000mt in FY17. Over the years, FIL transformed its business model in favor of value added PVC pipes from commoditized PVC resin.
- As FIL reports PVC resin as a separate segment (captive sales transferred at market prices), the reported EBITDA contribution from PVC resin business appears high at ~59% in FY17. However adjusting for captive EBITDA, the external PVC resin EBITDA accounts for only 23% in FY17. In 2009, the external PVC resin used contributed ~65% of total EBITDA, hence FIL has seen major transformation in business model, the exposure is now skewed to the value added PVC Pipes & Fittings business.
- PVC resins is a capital intensive business. Given FIL commissioned the capacity in 1994 (phase 1) and 2006 (phase 2), the capital employed from resin is just 42% of overall capital employed, almost equivalent of PVC pipes segment. Current replacement cost for PVC resin with capacity equivalent to Finolex (2,72,00mt) is about Rs.30-40bn.

Evolution into an Integrated Pipes player: Aggressive addition in Pipes capacity

Finolex pipes capacity now exceeds PVC resin capacity; Current captive resin capacity can be used to manufacture pipes and fittings worth ~290Kt

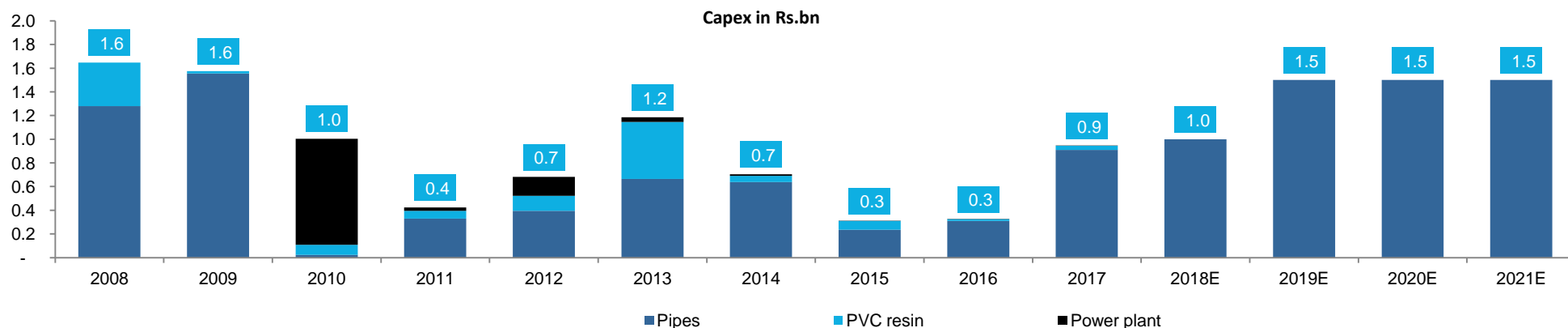


Source Company, Spark Capital

Capex intensity to increase over next three years in adding Pipes and fittings capacities:

- Finolex expanded its pipes capacity by 60% in last five years. Going forward, Management is guiding for similar capacity increase over the next three years.
- Current Pipes and fittings capacity of 290kt will grow to 441kt by 2020E with offering in Agri pipes, Plumbing PVC and CPVC pipes. Finolex plans to add 50,000mt capacity in CPVC pipes post its tieup with Lubrizol.
- Current resin capacity of 272Kt can cater to Pipes demand of 290kt. For its Gujarat plant, Finolex buys resin from external source (Reliance Industries) due to freight cost advantage.
- Of the total capex of ~ Rs.2.3bn between FY14-FY17, only Rs. 0.2bn was spent on the PVC resin business.

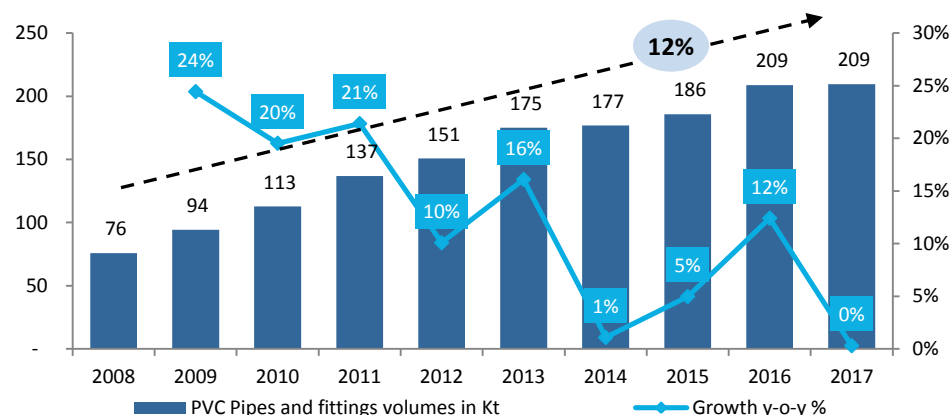
Majority of the capex incurred in last five years is on PVC pipes and fittings capacity. Finolex aims to add further 150Kt capacity over next three years in Pipes



Source Company, Spark Capital

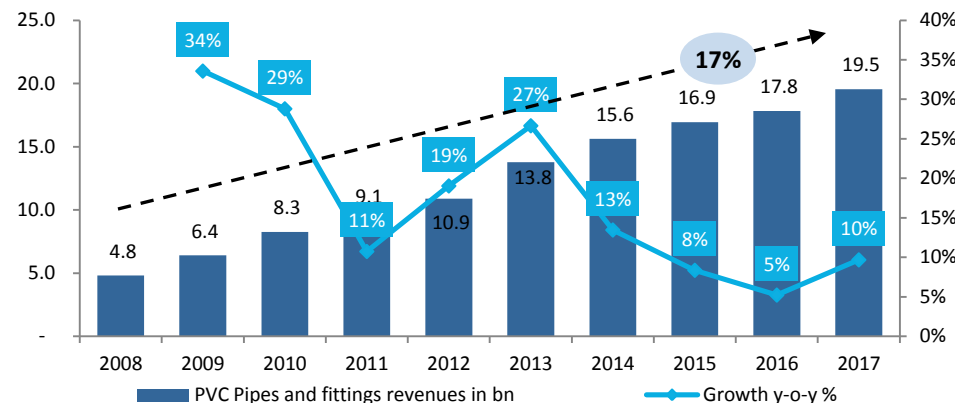
PVC Pipes capacity addition led to higher captive consumption of resin and lower external sales

Pipes and fittings volumes grew at CAGR of 12% since 2008



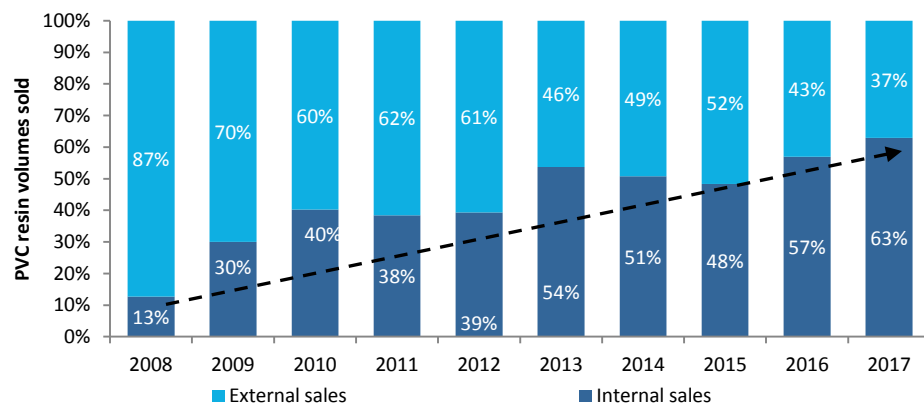
Source Company, Spark Capital

whereas Pipes and fittings revenues grew at CAGR of 17% since 2008



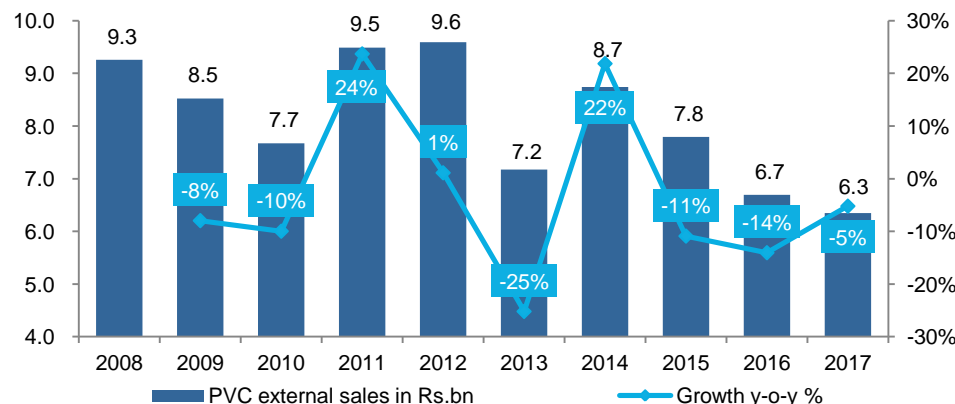
Source Company, Spark Capital

Increasing Pipes capacity increased internal sales of PVC resin



Source Company, Spark Capital

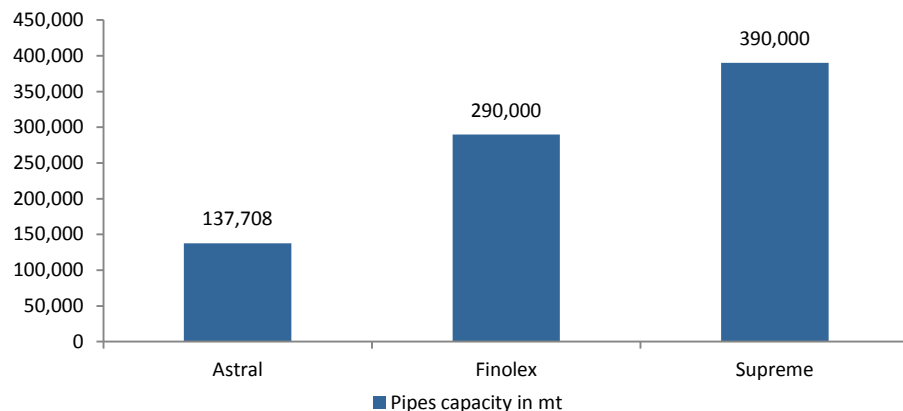
And declining PVC resin external sales



Source Company, Spark Capital

Overview of Pipes business: Finolex is a market leader in Agriculture PVC Pipes

Finolex Pipes capacity is second highest after Supreme Industries



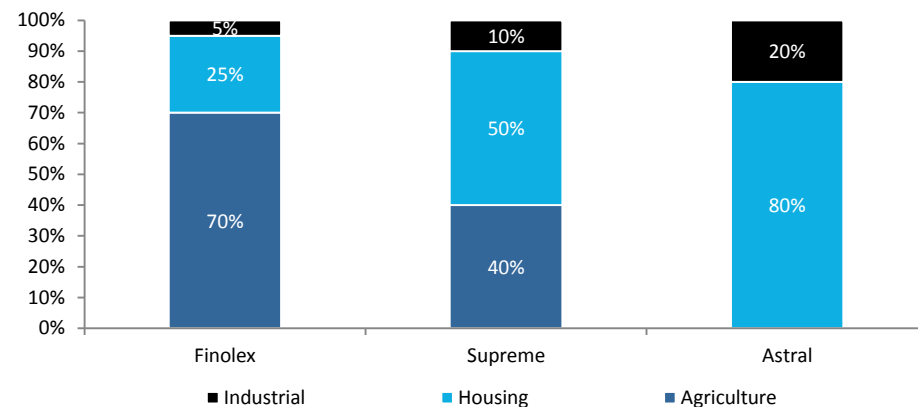
Source Company, Spark Capital

Finolex brand is very strong in West and South

Plant location	North	West	East	South
Astral		✓		✓
Finolex		✓		
Supreme	✓	✓	✓	✓
Regional Dominance				
Astral	Medium	High	Low	High
Finolex	Medium	High	Low	High
Supreme	High	Medium	High	High

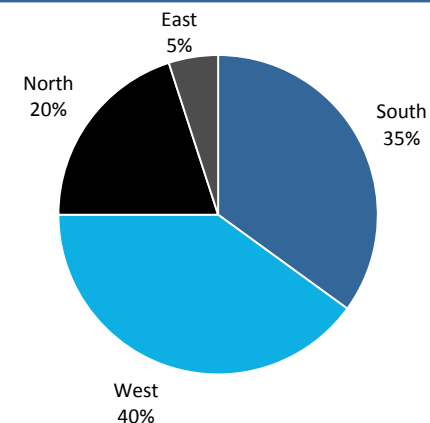
Source Company, Spark Capital

Agriculture pipes are the major driver for Finolex whereas Housing/Plumbing remains the major driver for Supreme and Astral



Source Company, Spark Capital

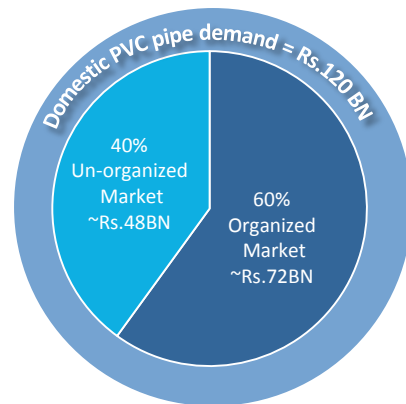
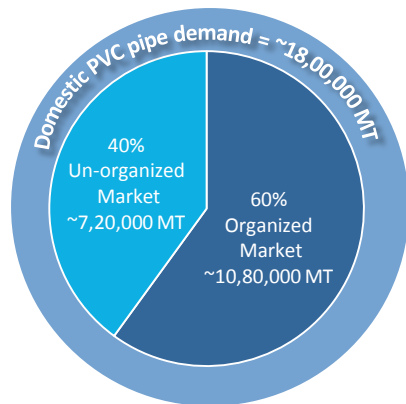
Finolex regional sales contribution: Four Southern states, Maharashtra and Gujarat accounts for 70-75% of overall pipes sales



Source Company, Spark Capital

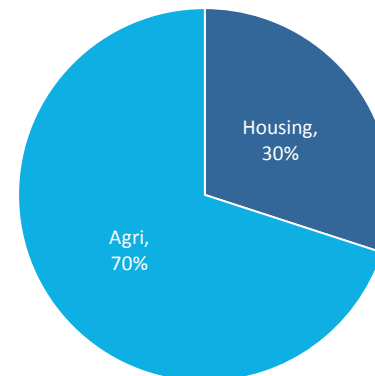
Overview of PVC Pipes Industry; Agri pipes contribute 70% to overall industry volumes

Size of PVC Pipes industry



Source: Industry, Spark Capital

70% of PVC pipes demand by volumes and 60% by value is Agricultural based



Source: Industry, Spark Capital

Difference between Agri pipes and Plumbing pipes

	Agri pipes	Plumbing pipes
Diameter	Larger (4-8inches)	Smaller(1/2-2 inches)
Key Products	Rigid PVC and Column pipes	uPVC, ASTM, SWR pipes
Fittings proportion	Long pipes with lower fittings	More bends requires higher fittings
Price and Margins	Cheaper and lower margins of 7-10%	Expensive by 10% than Agri and margins of 10-13%
Usage	Canals to fields or Tubewell to fields	Inlet/Outlet to drainage

Source: Industry, Spark Capital

Driver of Agricultural Pipes demand

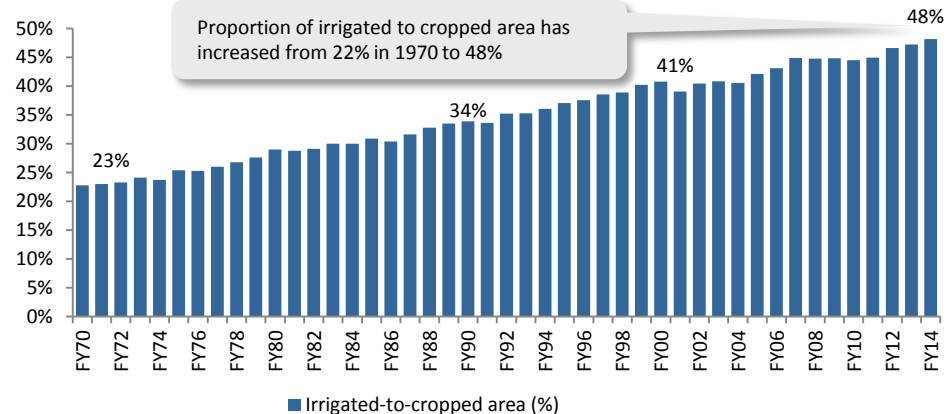
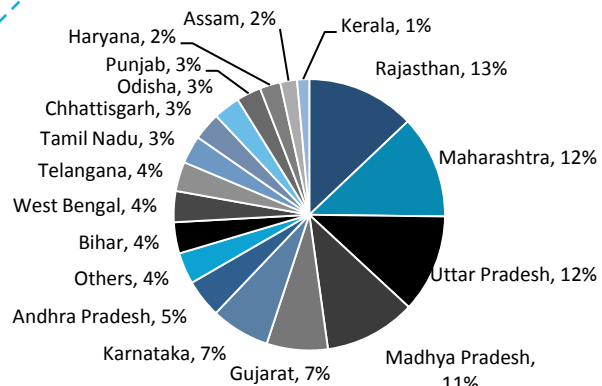
Rural income	Higher rural per capita income facilitates buying MIS system and embracing technology
Good monsoon	Good monsoon increases water table; Aids in sourcing water from tubewells and canals
Canal connectivity	Expansion of canal network; Aids during drought times
Technology adoption	Cheap , easy to use and availability. E.g. Use of microirrigation to increase yields

Source: Industry, Spark Capital

Agriculture in India is still majorly dependent on monsoon vagaries; Only 48-50% of sown area is irrigated through sources other than monsoons

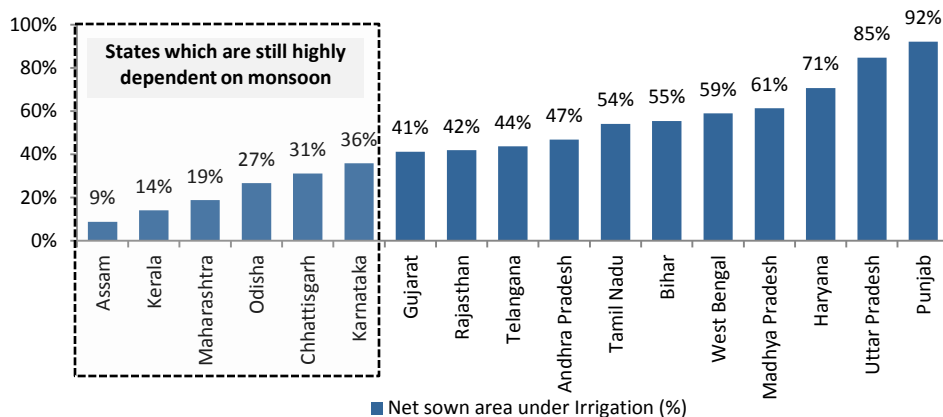
Total sown area land in India: Maharashtra, Central India (UP and MP), Southern states have the highest sown area

Total sown area:
141 Mn Hectare



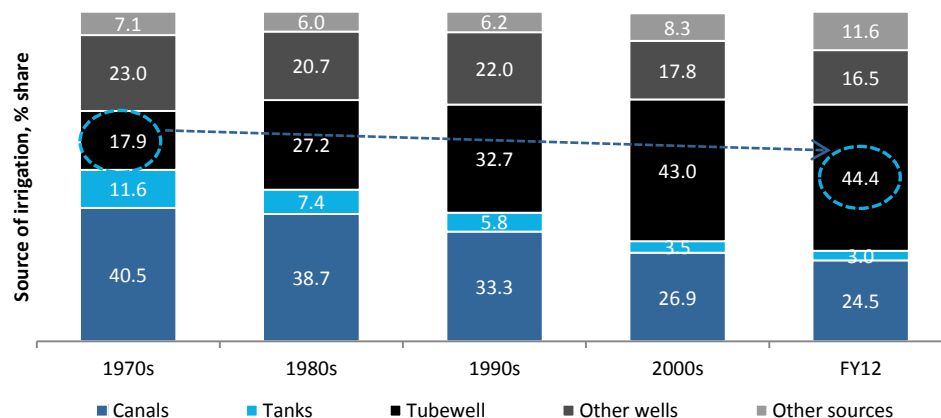
Source: Census, Spark Capital

But most of these states remain dependent on monsoon for irrigation



Source: Census, Spark Capital

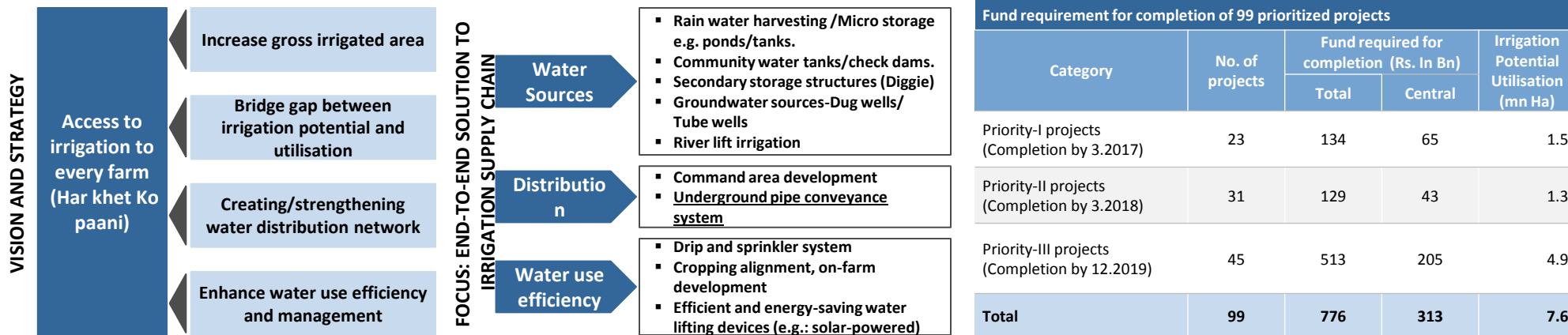
Most of the farmers depend on the Tubewells as source of irrigation; Tubewell water levels depends on monsoon



Source: Census, Spark Capital

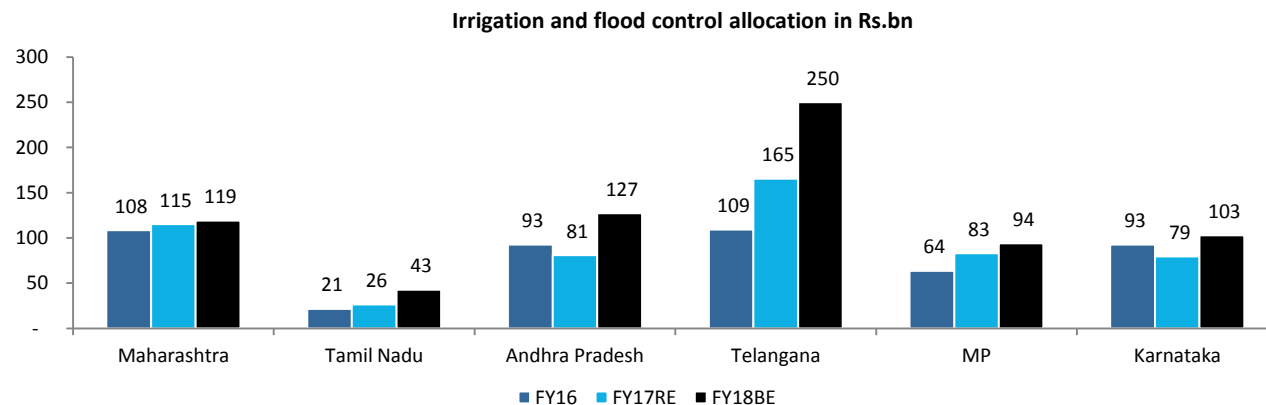
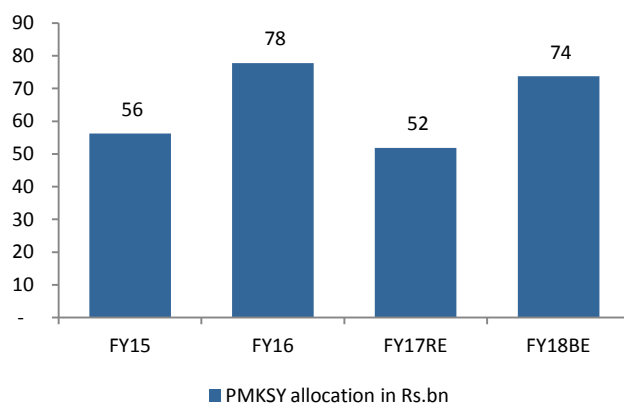
To increase irrigation area and develop other sources for irrigation, Central government has launched Pradhan Mantri Krishi Sinchayee Yojna (PMKSY) which encompasses all past schemes; *Aim to increase 10% increase in irrigated area*

Pradhan Mantri Krishi Sinchayee Yojna (PMKSY) was launched in July, 2015 with outlay for the five-year period at Rs.500 bn (10 percent increase in irrigation can bring an additional 14 mn hectares under assured irrigation and also 202 bn cubic meters of ground water potential is still to be tapped)



Source – Department of Agriculture & Cooperation, Ministry of Agriculture

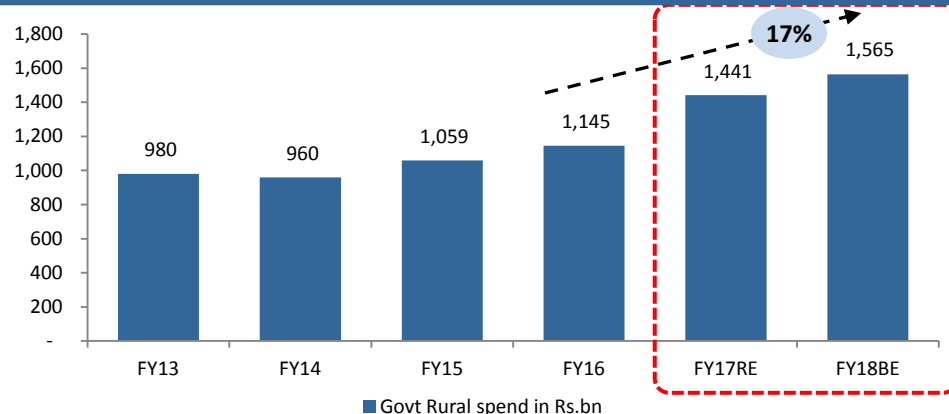
PMKSY allocation has been stagnant; But States allocation in irrigation has increased in FY18BE



Source: Central and States Budget documents, Spark Capital

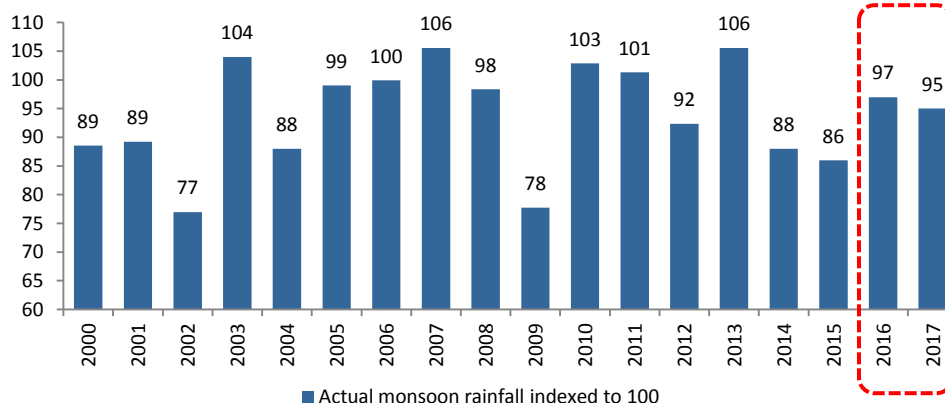
Higher rural spend and better monsoon to aid in higher Agri pipes sales; Expect Agri Pipes demand to grow by 9-10% over next five years

Govt spend on rural economy remains buoyant; Central govt allocation on rural economy grew by 17% cagr over FY16-18E



Source Company, Spark Capital

Relatively Better monsoon in Aug 2016-17 compared to drought situation faced in 2014-15

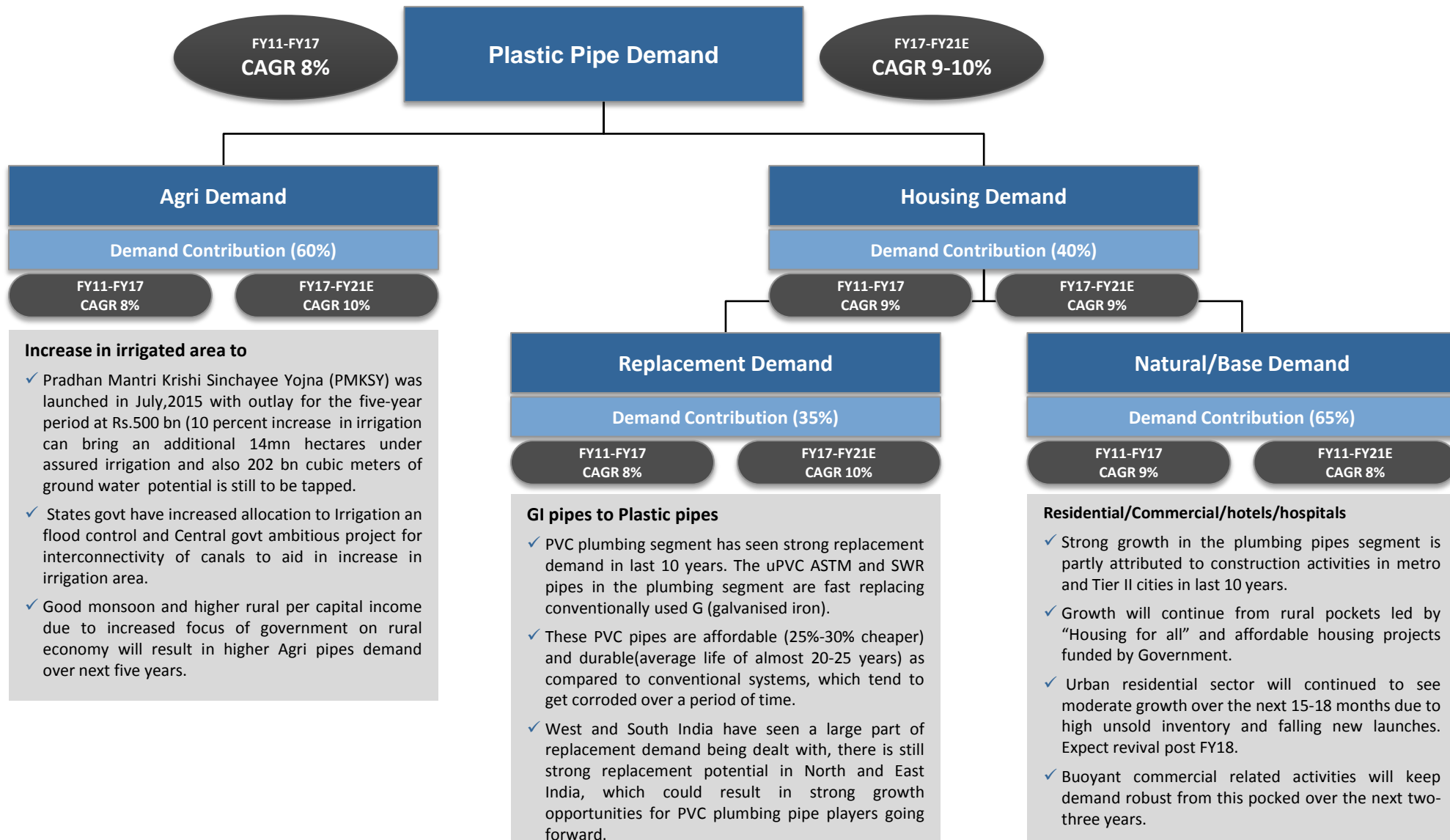


Source Company, Spark Capital

Agri PVC Pipes demand dynamics:

- Agri PVC pipes demand largely depends on availability of river/canals which can be then connected to farmland or from tubewells/other sources to farmland.
- Irrigation through tubewells is the most common but Tubewell farmers in India are also dependent on the vagaries of monsoon as during monsoon deficit, expenses for buying water from tubewell owners shoot up manifold. Most small and marginal farmers do not own pumpsets and tubewells, they buy water from larger farmers.
- Increasing diversion of irrigation water from canals to domestic and industrial purposes resulted into lower irrigated area.
- PMKSY and Interlinking of major rivers in India can increase the availability of water sources and hence the irrigated area.
- Lower is the distance of water sources from farmland, lesser is the cost for farmer to implement any pipe solution to source water.
- Currently Agri pipes buying is done in groups by farmer due to cost involved in sourcing water from distant water resources.
- Most of the Agri pipe players follow strict cash and carry model unlike microirrigation (MIS) industry.

Demand Outlook for Plastic Pipes



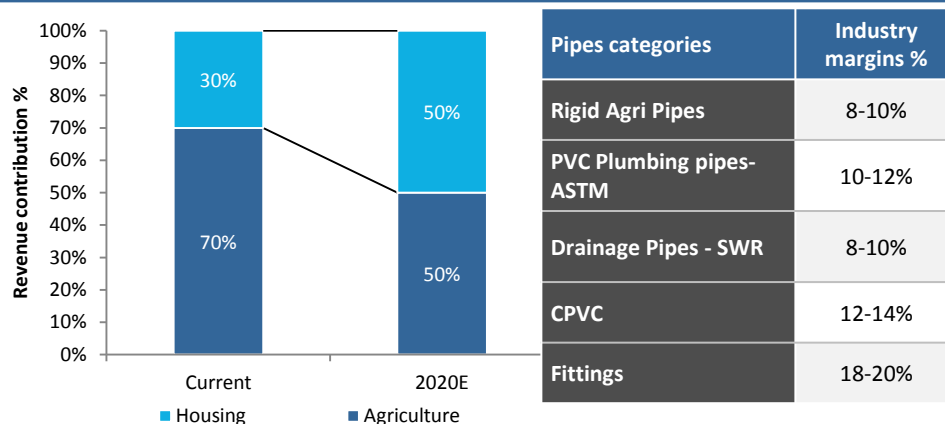
Finolex aims to increase market share in Agri and increase revenue contribution from Housing led by capacity addition

Finolex remains market leader in Agri; Focusing on North and East market to further aid in market share gains

Agri Pipe Industry	All India	North	South	East	West
Industry size in Rs.bn	70	15	22	10	23
Key Players	Finolex, Supreme, Jain, Kisan	Supreme, Finolex, Kriti, Captain	Supreme, Finolex, Nandi, Sudhakar	Supreme, Finolex, unorganised	Supreme, Finolex, Jain, Prince, Kisan
Finolex Org Mkt Share	20%	10%	20%	5%	25%

Source Company, Spark Capital

Finolex aims to increase exposure to housing PVC pipes to 50% from 30% now; Housing pipes have higher margins than Agri pipes



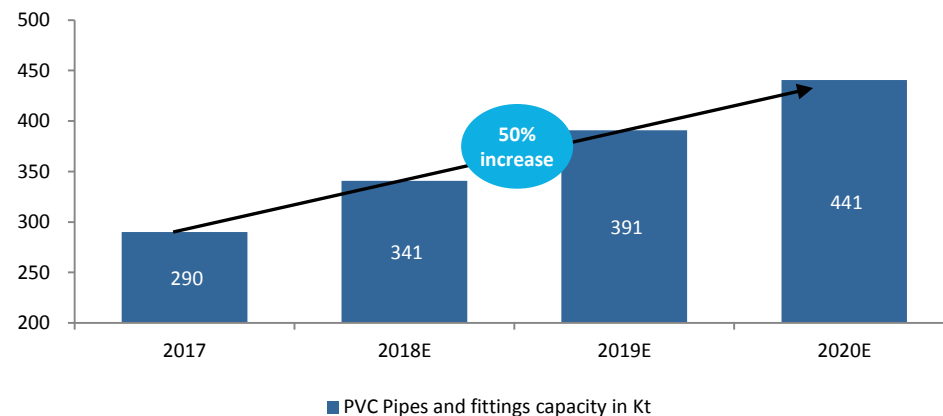
Source Company, Spark Capital

Diversification into new product categories will be a key growth driver

Company name	Market leadership	Increasing exposure
Supreme Industries	PVC plumbing pipe	CPVC
Astral	CPVC Pipes	Agri Pipes
Ashirwad	Column pipes and CPVC	PVC Plumbing (ASTM)
Finolex	Agri Pipes	Column pipes and CPVC

Source Company, Spark Capital

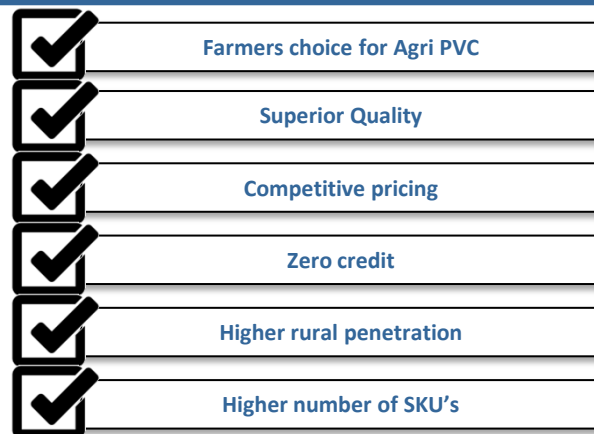
Pipes and fittings capacity to increase by 50% over next three years



Source Company, Spark Capital

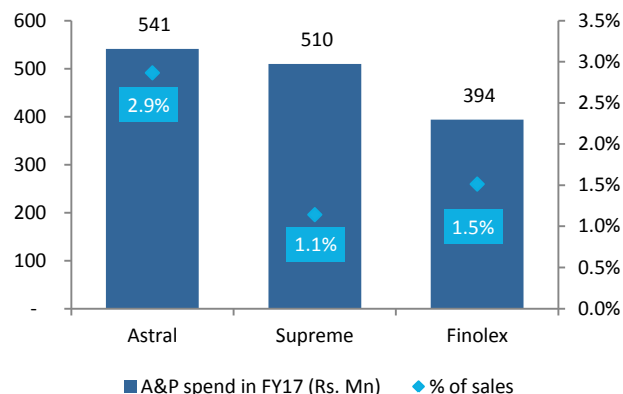
Harnessing existing “Finolex” Brand and Distribution network for its Housing segment PVC pipes plans

“Finolex” brand has very strong recall in rural

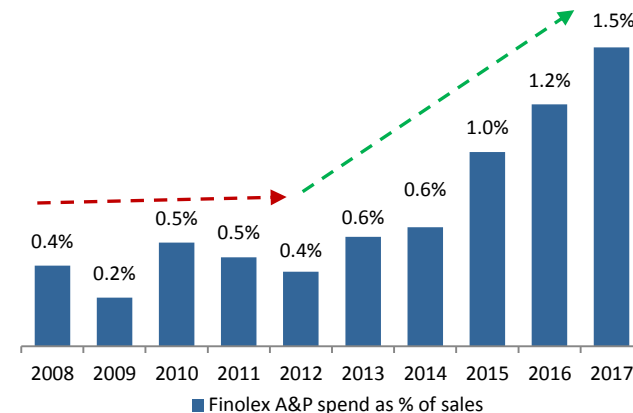


Source Company, Spark Capital

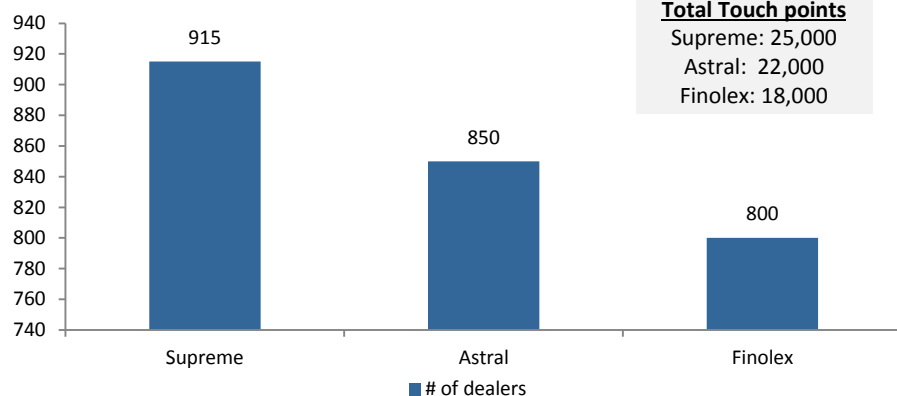
Finolex A&P spend is at par with Supreme industries; Astral is the most aggressive on A&P among Pipes players



Source Company, Spark Capital

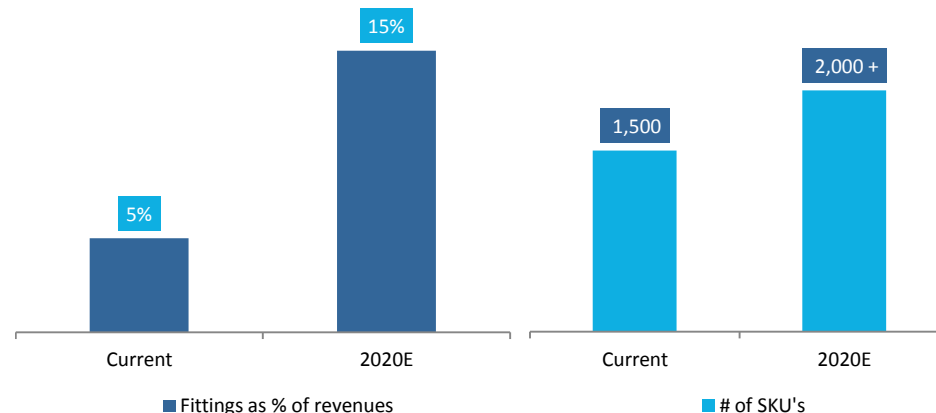


Dealers count: 50% of Finolex existing distributors are in rural parts



Source Company, Spark Capital

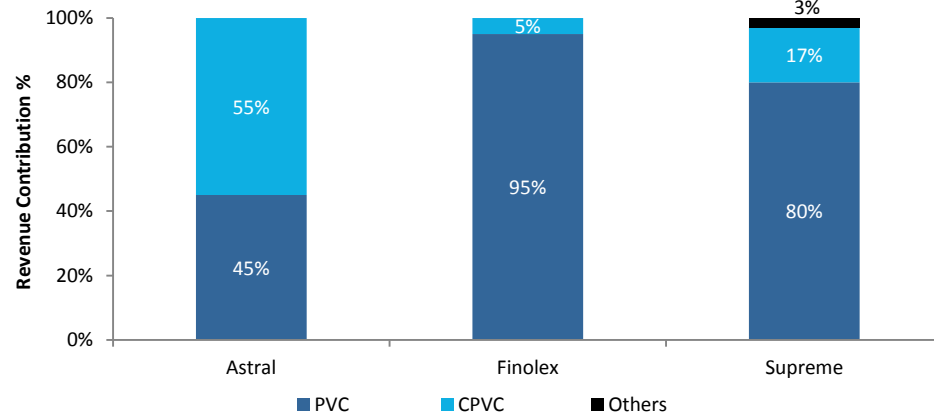
More emphasis on fittings and higher no of SKU's in revenues due to increasing housing exposure



Source Company, Spark Capital

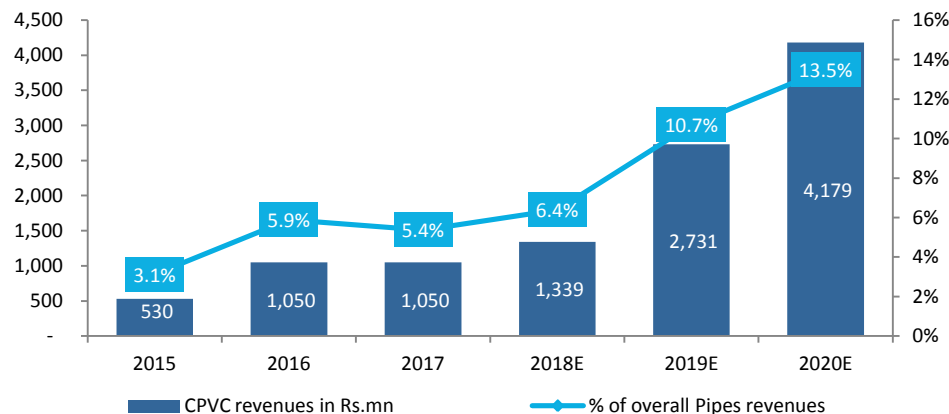
Finolex CPVC plans: Tieup with Lubrizol should augur well in long term; Execution remains key monitorable due to category growth slowdown

Supreme and Finolex are the late entrants in CPVC segment ;Astral started into CPVC pipes and expanded in to PVC thereafter



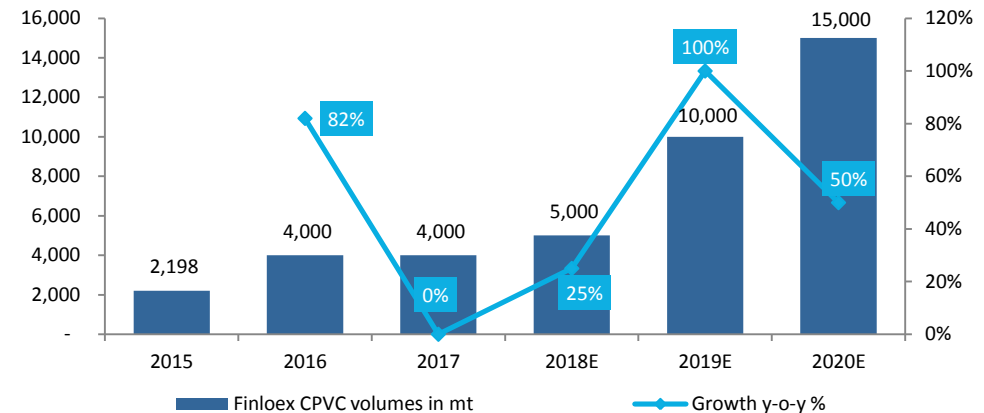
Source Company, Spark Capital

CPVC piping segment to contribute 14% to overall piping revenues by FY20E from 5% now



Source Company, Spark Capital

We assume Finolex CPVC volumes to treble over next three years post tieup with Lubrizol



Source Company, Spark Capital

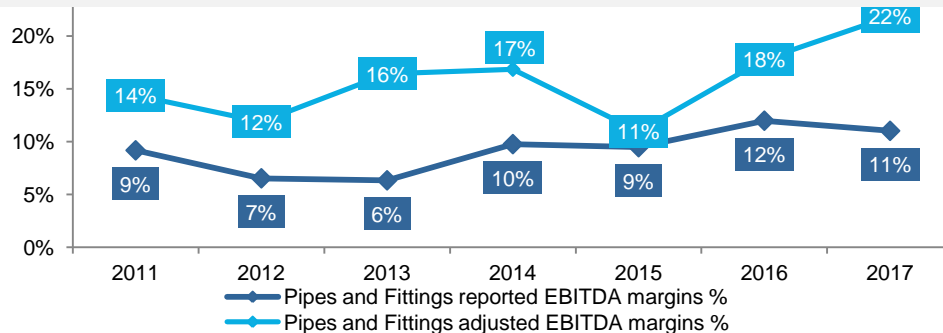
Tieup with Lubrizol- A step in the right direction to increase contribution to housing pipe category

- Finolex tied up with Lubrizol to source CPVC compound in FY17 after Astral called off its partnership with Lubrizol.
- Partnering with Lubrizol is the right step as FIL wants to aggressively increase its footprints in housing segment over next the 3-4 years and “Flowguard” has a reasonable success in CPVC segment in India.
- Though CPVC segment is no longer an exclusive category with high margins as CPVC resin/compound now is easily available due to capacity expansion done by Sekisui, Kaneka and Chinese CPVC players.
- Given Lubrizol has recently commissioned its facility in India and with only two partners (Ashiwad and Finolex) to sell Flowguard, we assume that trade terms for these partners will be favourable to compete with other CPVC pipes players.
- We will watch out for debtor days for Finolex going forward as CPVC trade terms are typically range between 20-30 days unlike its Agri and housing PVC segment which is cash and carry model for Finolex.
- Also, given Finolex has relatively lower presence in the metro markets, increase in distributors and higher advertising and promotion spend will be of importance to get traction in CPVC segment.

Finolex inherent strength lies in its backward integrated facility which helps to adapt in various market condition

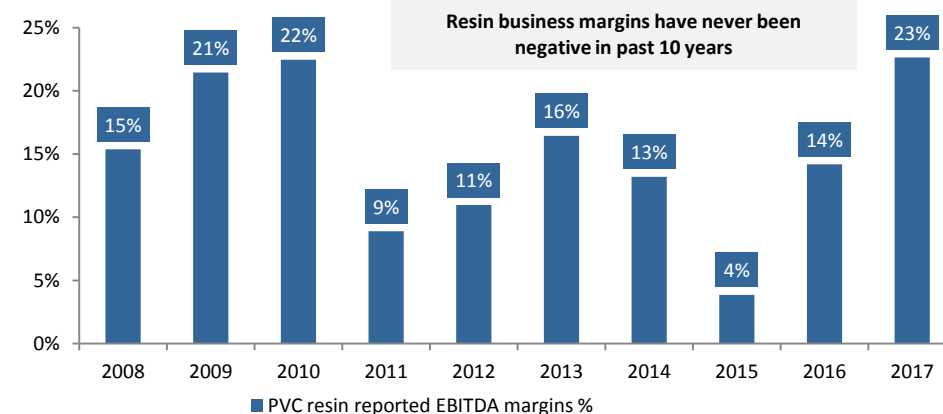
Finolex accounts captive resin consumption as intersegment sales at market price; We adjust pipes margins by accounting for internal captive sales margins in Pipes EBITDA

Accounting captive resin sales at market price masks the inherent competitive advantage which is **offering competitive product pricing as per environment and still command superior margins despite being in low margins (Agri pipes) category**



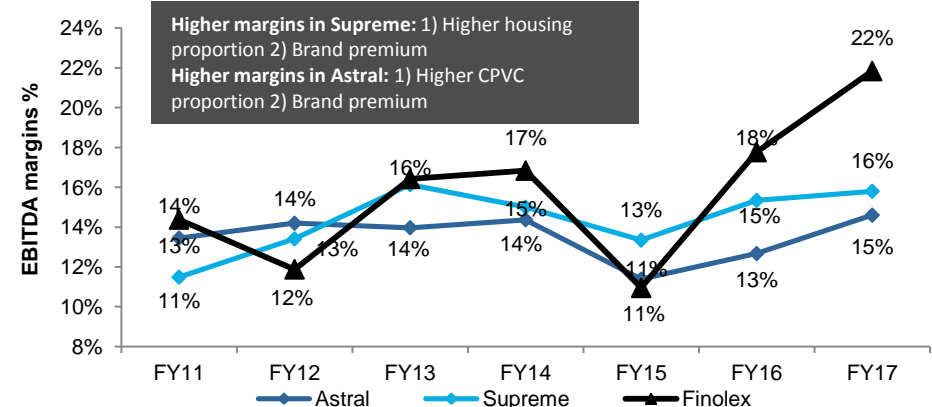
Source Company, Spark Capital

Unless resin business posts negative EBITDA, Finolex margins are much more superior despite Agri category



Source Company, Spark Capital

Finolex accounts captive resin consumption as intersegment sales at market price; We adjust pipes margins by accounting for internal captive sales margins in Pipes EBITDA



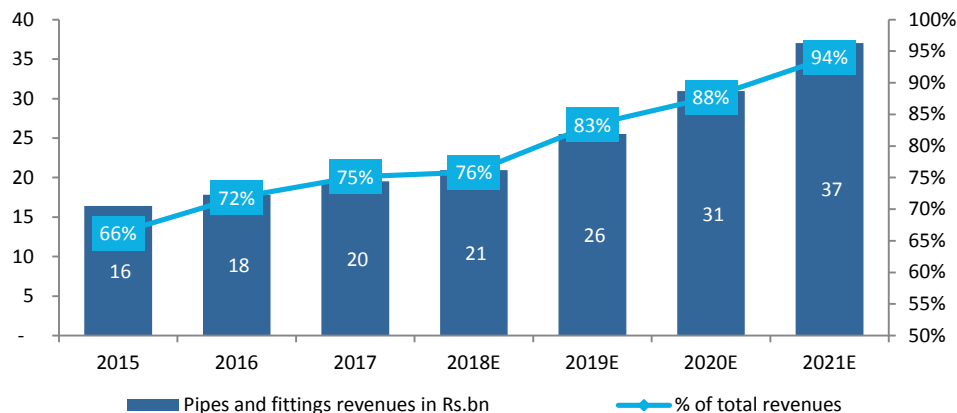
Source Company, Spark Capital

A misunderstood competitive advantage:

- Finolex pipes and fittings segment margins seem lower than other players due to higher exposure to Agri pipes which have the lowest margins .
- Given farmers are very price conscious at the time of buying Agri pipes, players with cheapest priced pipes with quality win.
- Captive PVC resin unit enables Finolex to competitively price its products as per the spreads (PVC-VCM-EDC) prevalent in market and gain the market share.
- Also, Finolex currently accounts captive resin consumption as intersegment sales at market price. With increasing pipes and fittings capacity leading to higher captive consumption, we adjust Pipes segment EBITDA by adjusting captive sales EBITDA to Pipes EBITDA.
- Adjusted EBITDA margins are superior to other pipes players which reflects the advantage a captive resin players operating in low margins business has.
- Given other pipes players don't have captive resin facility, diversification from housing to Agri will be margin dilutive but it is not the case for Finolex.

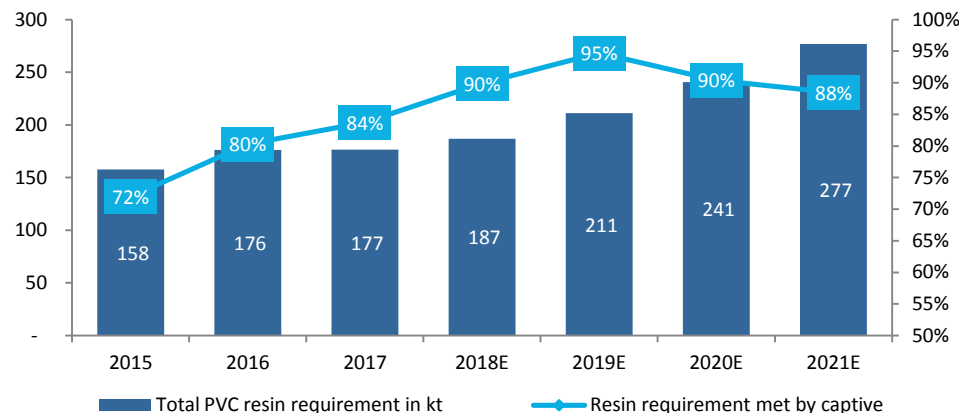
Perception change from a resin company to fully integrated Pipes company: Capacity addition in Pipes to increase captive consumption to 90%

Finolex's pipes and fittings business will contribute 94% to overall business



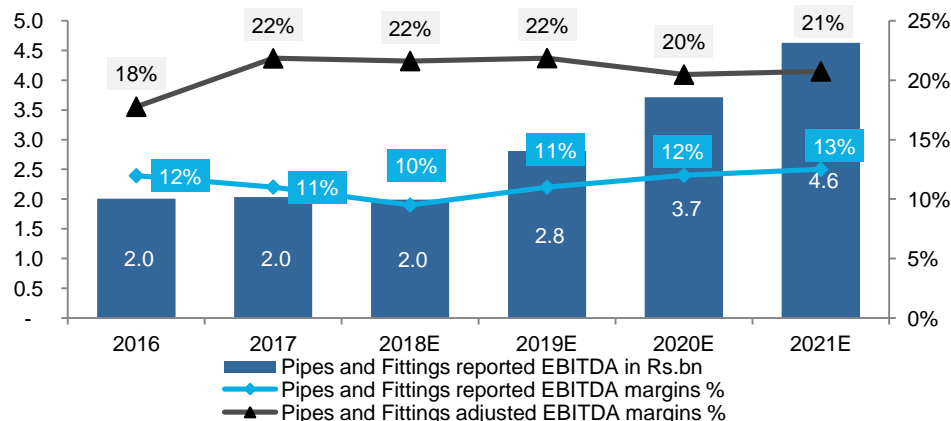
Source Company, Spark Capital

90% of resin requirement for pipes and fittings segment will be met by captive resin aiding in superior margins



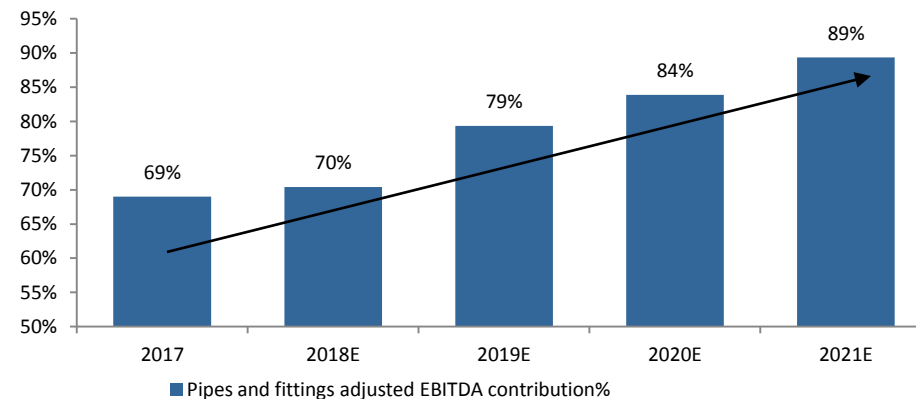
Source Company, Spark Capital

Expect Pipes margins to improve due to higher housing pipes contribution; Margins decline in FY18E as FIL passes on higher spreads benefits to gain market share



Source Company, Spark Capital

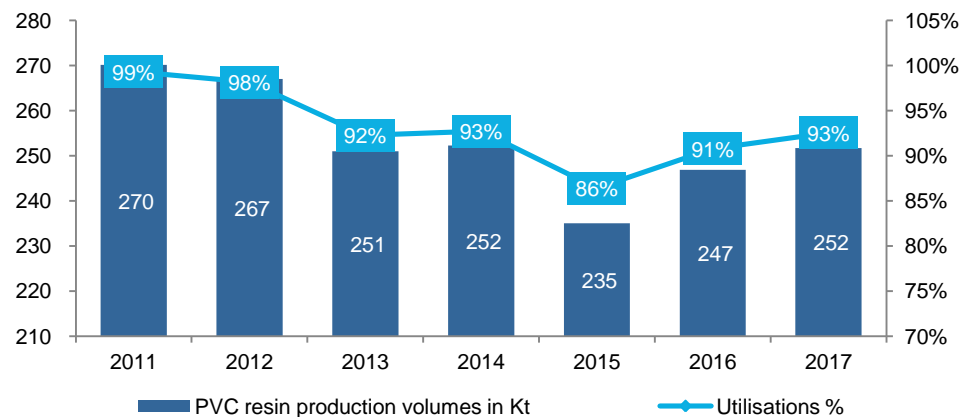
Pipes and fittings segment margin contribution to overall EBITDA



Source Company, Spark Capital

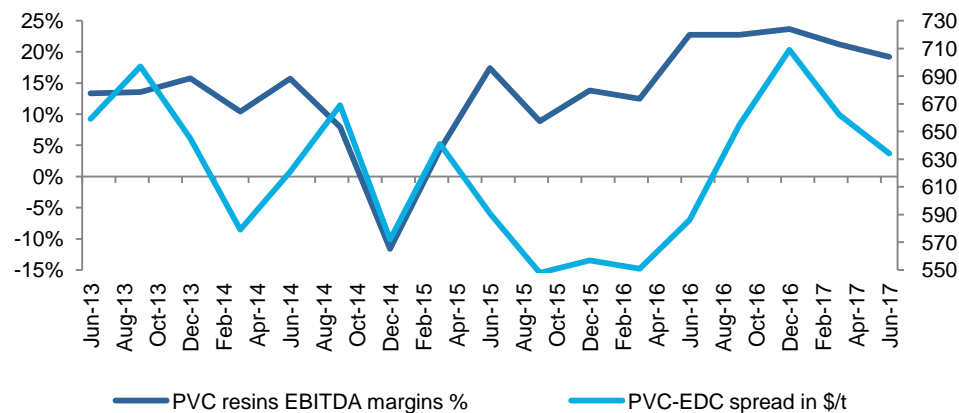
PVC Resin business: High PVC-EDC spreads in FY17 led to margins expansion

Total resin produced and utilisations



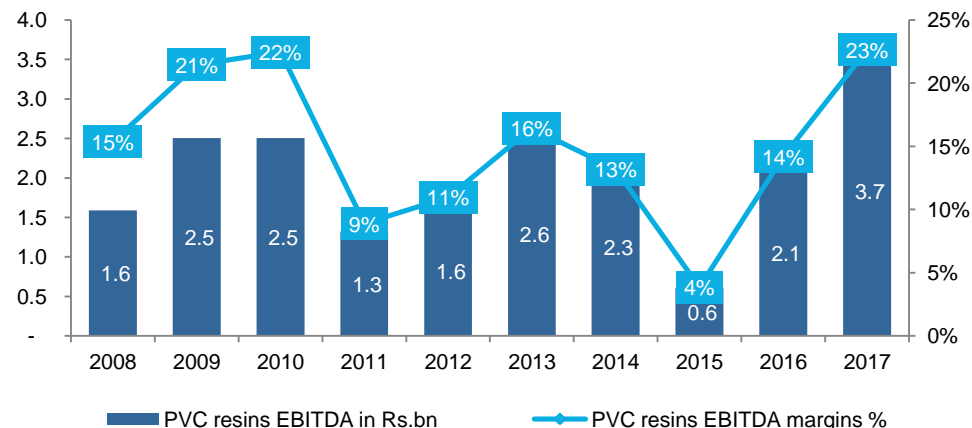
Source Company, Spark Capital

PVC resin margins are function of PVC-EDC spreads and inventory gain/loss



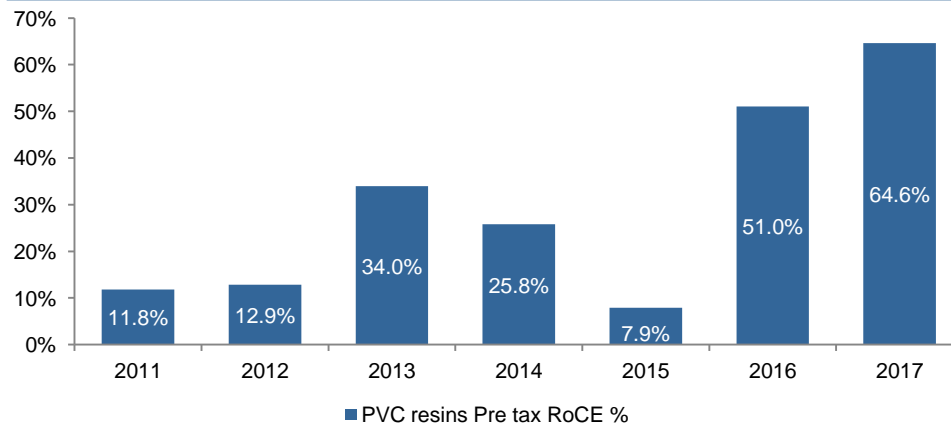
Source Company, Spark Capital

Margins are volatile due to PVC-EDC spread but long term average of 12-13%



Note: PVC- Poly vinyl chloride. EDC- Ethylene di-chloride, VCM- Vinyl chlorine monomer. Source: Company, Spark Capital

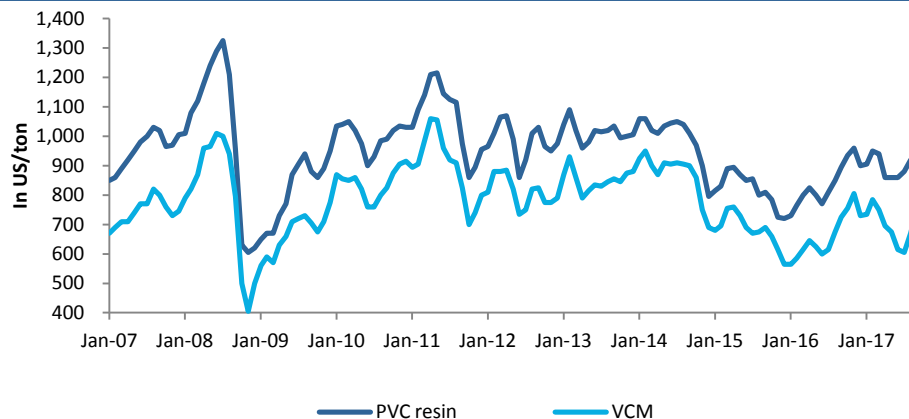
Resin segment RoCE's are high as most of the assets are depreciated (Spike in FY16-17 RoCE's due to asset revaluation post Ind-As). Normalised RoCE's of 25-30%



Source Company, Spark Capital

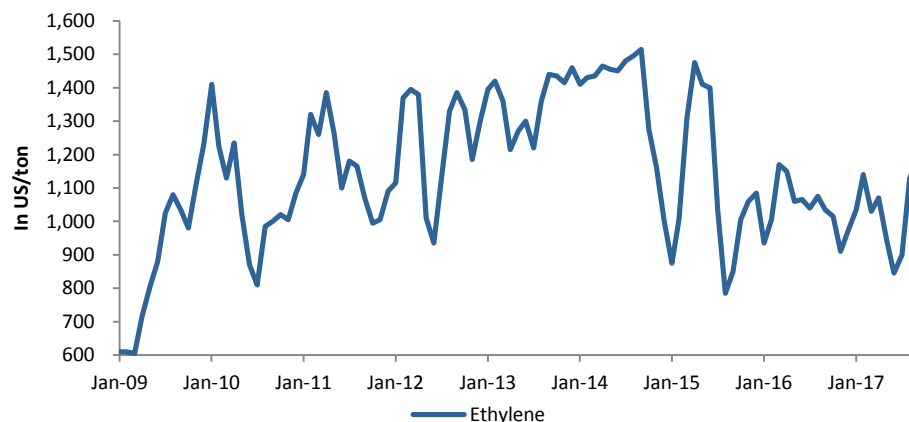
Easing oversupply in PVC post closure of EU and China units and surplus supply in EDC led to higher spreads

PVC prices have increased post touching its lows in 2015; VCM prices largely follow PVC prices



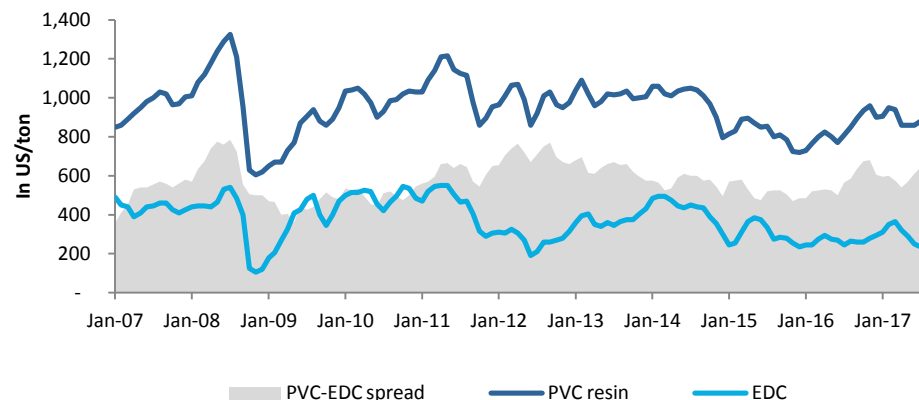
Source Company, Spark Capital

EDC price is function of availability of Ethylene and Chlorine; Ethylene prices are contained in last two years



Source Company, Spark Capital

PVC-EDC spreads are high due to falling input(EDC) prices



Source Company, Spark Capital

PVC resins prices on upward trend...

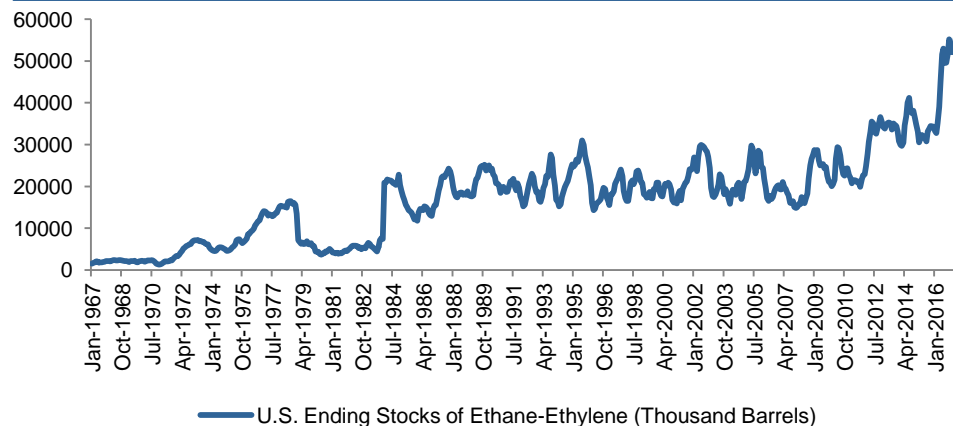
- Supply and demand balance in the downstream PVC market has improved, increasing operating rates for PVC to 70%.
- Due to declining of Chinese PVC exports, especially carbide-based PVC, and improved Chinese buying interest, other Asian PVC producers were able to achieve consecutive months' of firmer spot prices..
- China went from being a net exporter of ethylene-based and carbide-based PVC to being a net importer as Chinese government began a series of environmental in Hangzhou, China in early September 2016, which led to a number of Chinese vinyl facilities to lower their operating rates, or to shut down.

...whereas EDC prices trend down in FY17

- Ethylene is the key input for EDC. Oversupply in the ethylene due to capacity expansions in Middle east as a result of higher shale gas production resulting into lower Ethylene prices.
- Chlorine supply and prices depend on commissioning of Chlor Alkali capacities as Chlorine is byproduct in caustic soda production. Caustic soda production increased in FY16-17 leading to lower Chlorine prices. Closure of caustic soda units in China resulted into higher caustic prices which again lead to higher production in US.

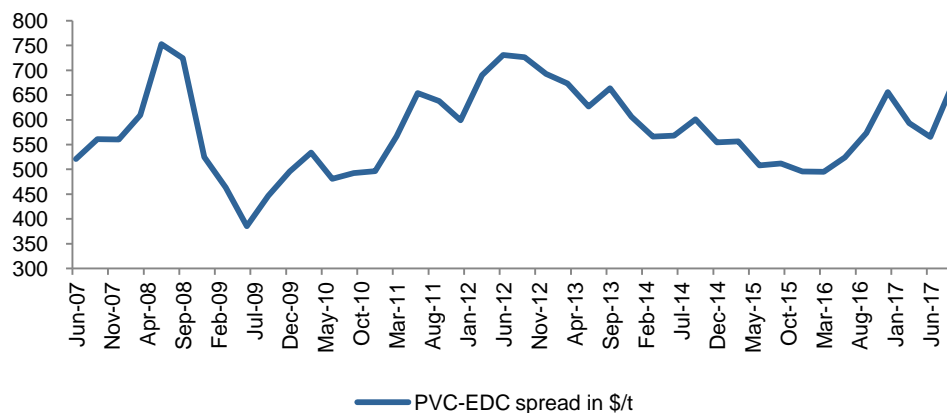
Expect current spreads to sustain in FY18 due to continuing PVC supply issues from China and oversupply of Ethylene in USA

Ethylene production is at lifetime high due to oversupply



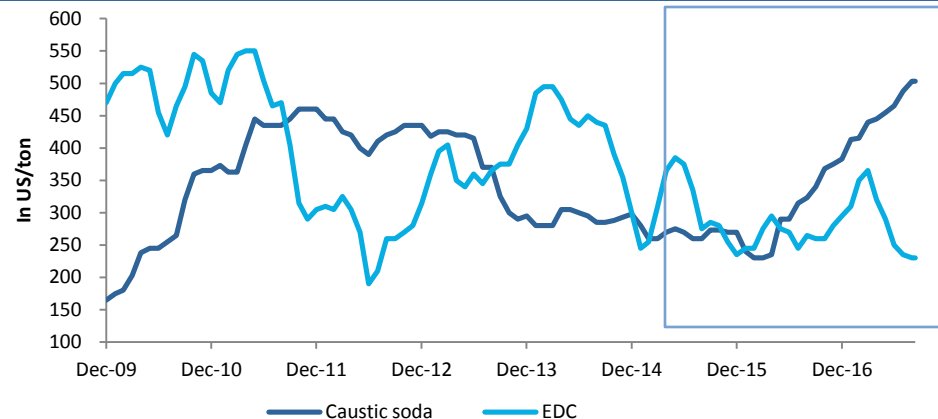
Source Company, Spark Capital

PVC-EDC current spreads crossed highs of FY17; Expect current spreads to sustain in FY18 due to PVC supply issues from China and continuing oversupply of Ethylene



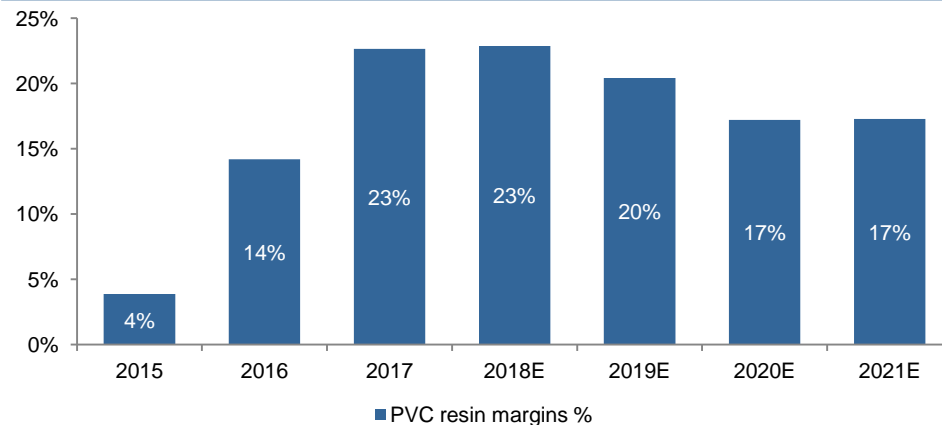
Source Company, Spark Capital

Caustic soda prices are also trending up; Chlorine is by product for Caustic soda manufacturers; Higher Caustic soda prices reduces Chlorine prices



Source Company, Spark Capital

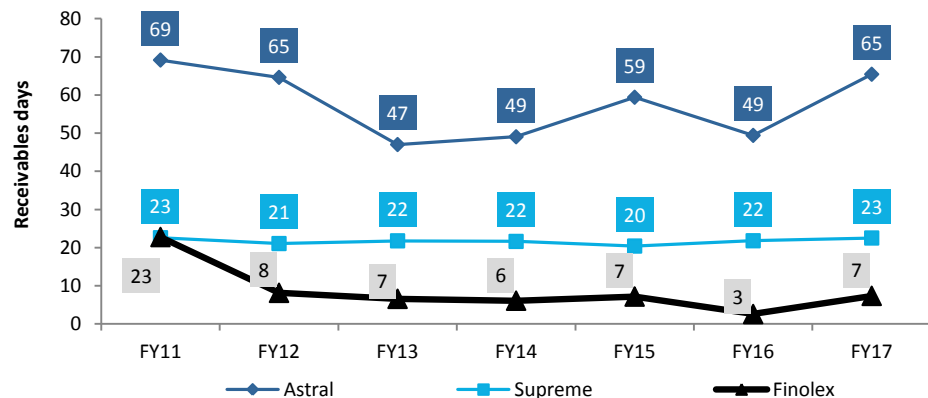
Expect FY18 PVC resin margins to be same as FY17 due to lower spreads in Q1FY18



Source Company, Spark Capital

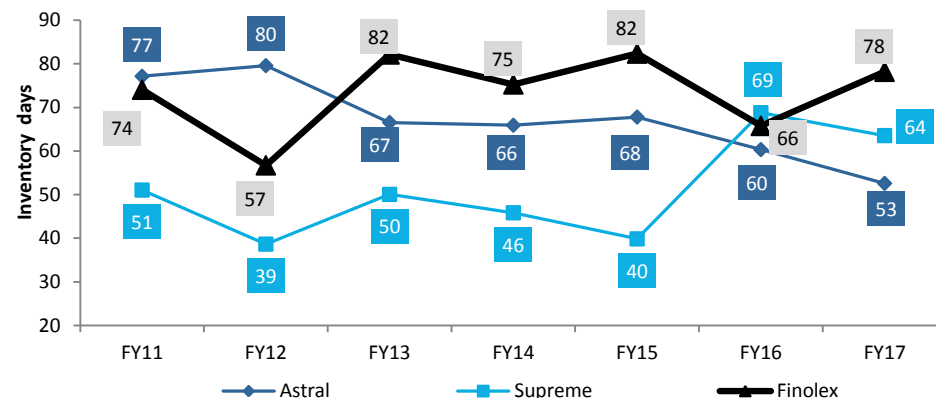
Working capital: “Cash and Carry” model offsets the higher inventory days due to captive resin plant

Finolex championed the “Cash and carry” model in Agri pipes which is reflected in its negligible trade receivables days



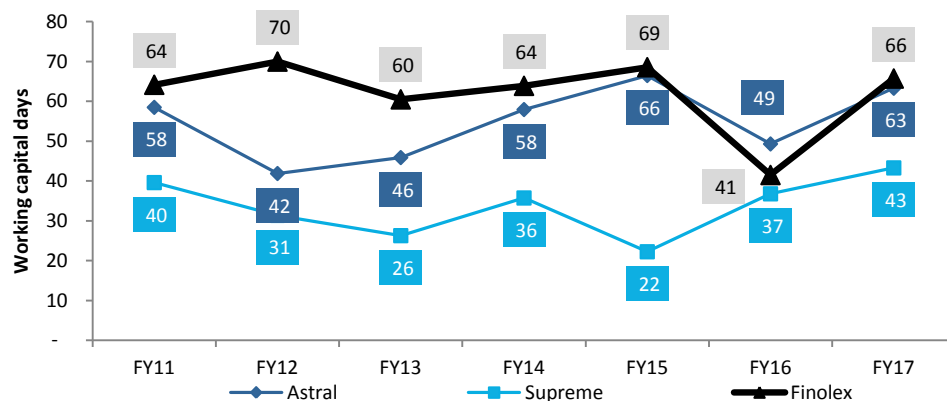
Source Company, Spark Capital

...But Finolex has higher inventory days due to maintaining higher inventory for resin business



Source Company, Spark Capital

Total working capital days are highest for Finolex due to higher inventory days

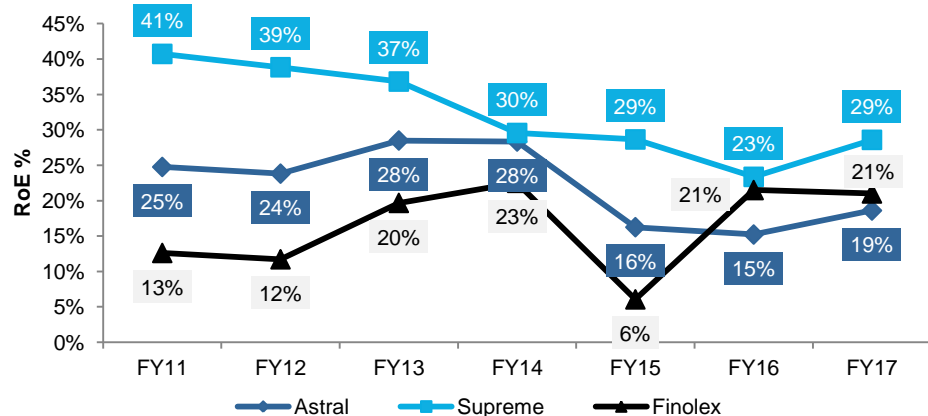


Source Company, Spark Capital

- Finolex pioneered concept of “Cash and carry” model in Agri pipes due to its good quality and aggressively prices product. This is reflected in its negligible receivables days compared to Supreme and Astral.
- But inventory days for Finolex are much higher as it maintains 1.5-2 months of inventory due to sourcing of raw material (EDC, VCM and Ethylene) outside India.
- Typical cash conversion cycle involves:**
 - ✓ Booking for EDC and VCM (NA for SIL and ASTRAL)
 - ✓ Delivery of EDC and VCM (NA for SIL and ASTRAL)
 - ✓ Conversion of EDC and VCM into Resin (NA for SIL and ASTRAL)
 - ✓ Resin inventory of 1 month
 - ✓ External/Captive sales of Resin (NA for SIL and ASTRAL)
 - ✓ Extrusion into Pipes for captive sales
 - ✓ PVC pipes sales
 - ✓ Payment to Suppliers

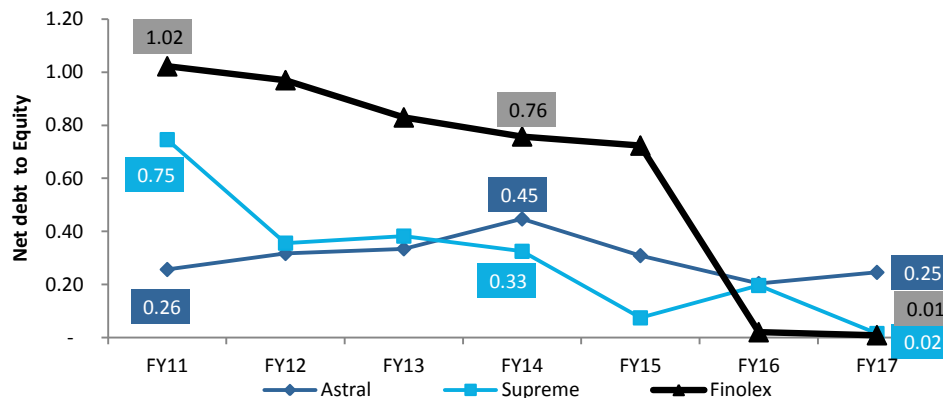
Strong return metric of more than 20%; High cash flow generation to damp RoE's in 2019-20E

Supreme RoE's are highest followed by Finlex



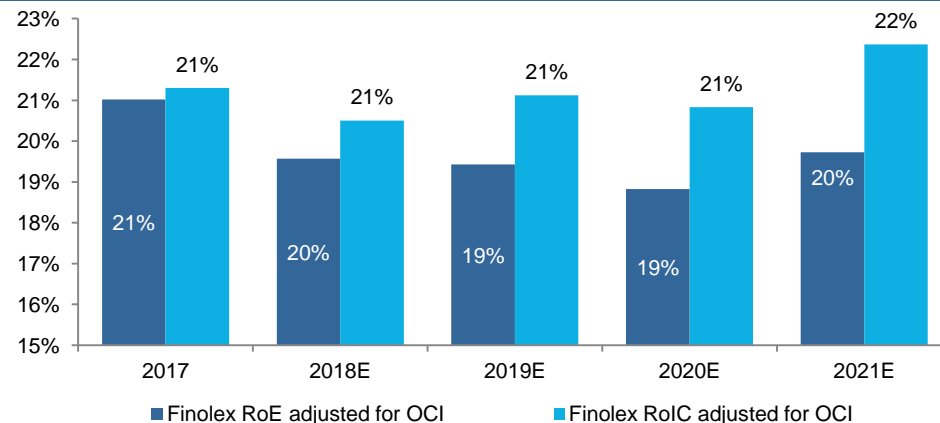
Source Company, Spark Capital

Balance sheet for most of the Pipes players is net cash



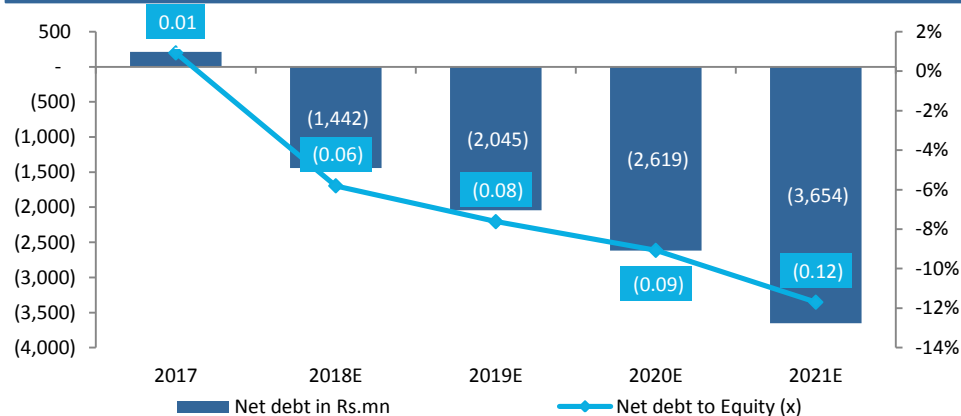
Source Company, Spark Capital

Finlex RoE's will be in range of 19-20% over next four years due to accumulated cash



Note: OCI: Other comprehensive income. FNXP revised investment value by Rs.5bn in FY17 and accounted in OCI. We eliminate this to adjust business RoE. Source Company, Spark Capital

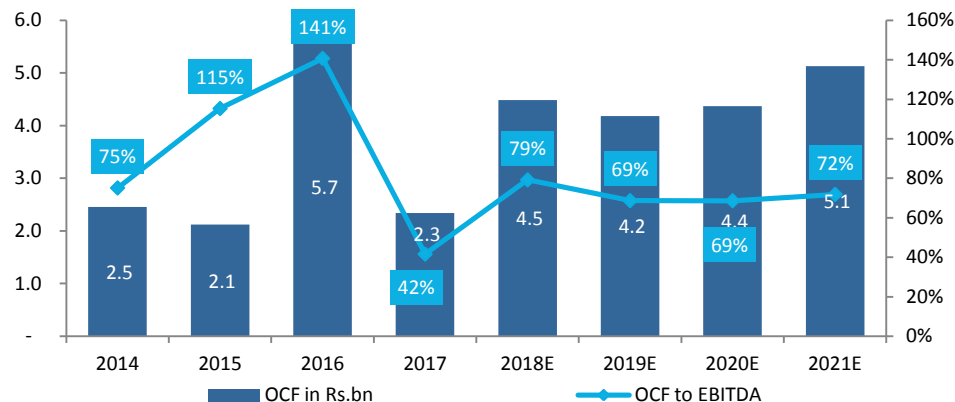
Finlex balance sheet remains net cash despite 50% increase in capacity



Source Company, Spark Capital

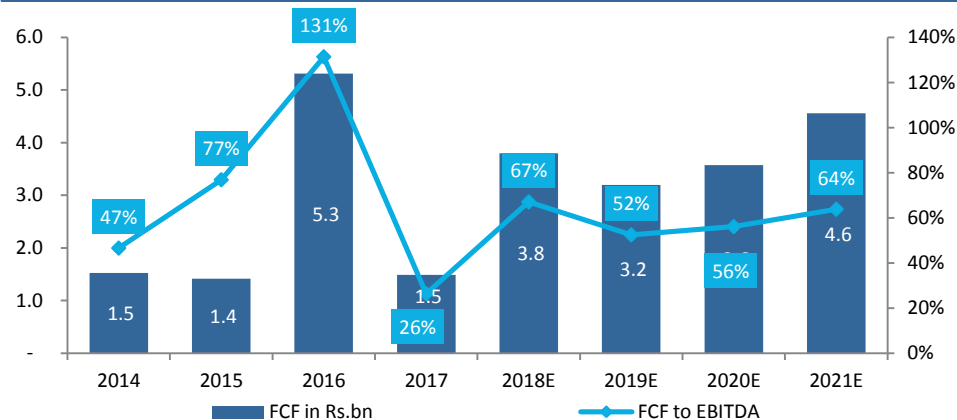
Cash flows and dividend payout

Finolex generates strong operating cash flows; Cumulative OCF over next two years is 10% of current market cap



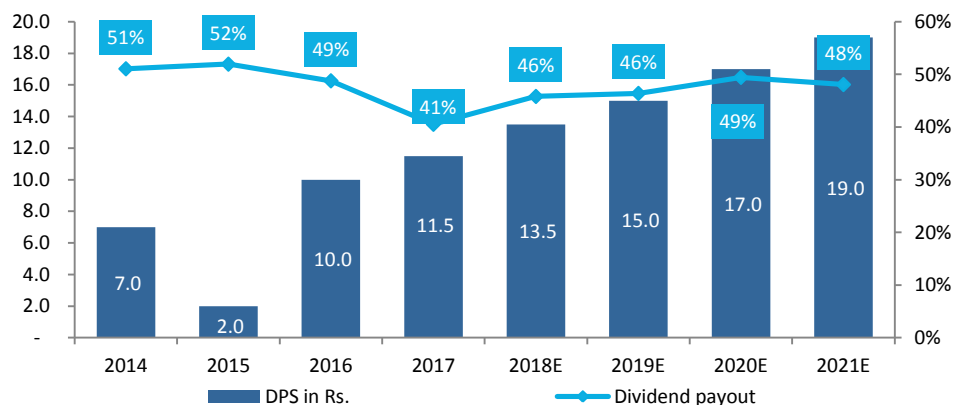
Source Company, Spark Capital

FY19 Free cash flow yield of almost ~5-6%



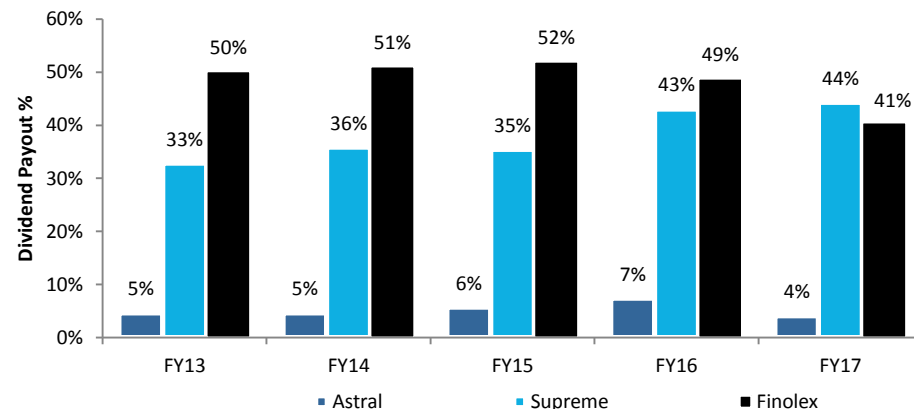
Source Company, Spark Capital

Consistent dividend payout of ~50%



Source Company, Spark Capital

Finolex dividend payout is highest among pipes players and has a yield of 3-4%



Note: Supreme paid special dividend of Rs.5 in FY17. Source Company, Spark Capital

Other investment: FIL holds 15% in Finolex cables which is valued at Rs.11bn at current valuations

Finolex's value in its investments caps the downside; Monetisation needs to be monitored

Investment	Stake %	Investment value in Rs.mn
Finolex Plasson (Associate)	FIL- 46% Plaschin group- 34% Finolex group exc. FIL- 20%	74.9
Finolex cables (Investment)	14.5%	11,462
Land at Pune	70 acres in Pune	15,000-20,000

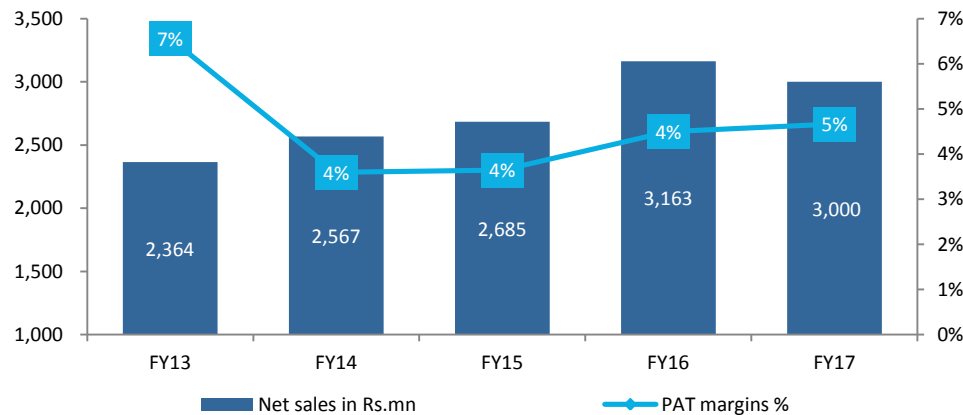
Source Company, Spark Capital

Finolex plasson is in the field of Micro Irrigation in India. Provides solution in Drip and Sprinkler Irrigation Systems and Turn- Key projects for all Agriculture sectors such as Row Crops, Horticulture, Green Houses, Plantations, Nurseries



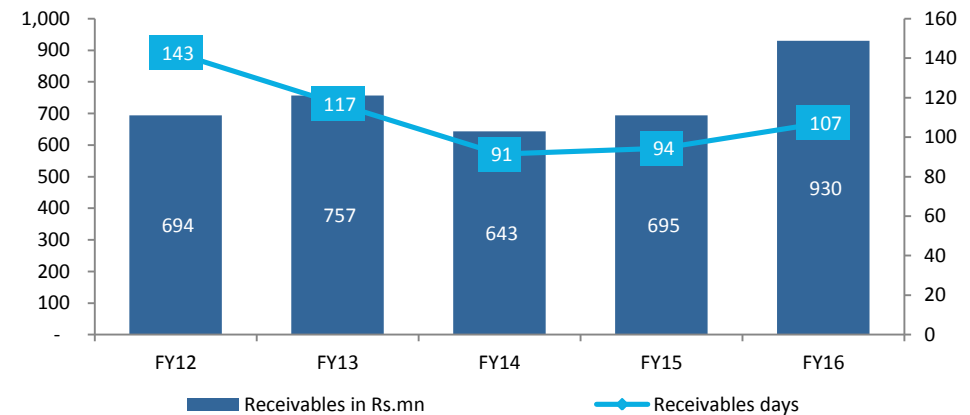
Source Company, Spark Capital

Finolex plasson profitability is stagnant over last two years...



Source Company, Spark Capital

...with high receivables days as well due to govt subsidy payout in micro-irrigation



Source Company, Spark Capital

Case for rerating: Higher profitability and return metrics warrant valuations discount to narrow with Supreme and Astral

Finolex Pipes profitability by adjusting captive resin profitability

	2014	2015	2016	2017	2018E	2019E	2020E	2021E
Revenues	15,633	16,938	17,822	19,545	20,931	25,534	30,954	37,043
Growth %		8%	5%	10%	7%	22%	21%	20%
EBITDA inc. OI	2,632	1,855	3,167	4,268	4,523	5,581	6,335	7,682
margins %	17%	11%	18%	22%	22%	22%	20%	21%
PAT	1,368	843	1,785	2,645	2,790	3,456	3,903	4,772
margins %	9%	5%	10%	14%	13%	14%	13%	13%

Source Company, Spark Capital

Valuations comparison with peers

	Company name	FY17	FY18E	FY19E	FY20E
PE(x)	Finolex	21.5	20.7	18.9	17.7
	Supreme	33.9	35.3	29.3	24.8
	Astral	59.0	48.6	34.3	28.3
EV/EBITDA	Finolex	13.4	13.1	12.1	11.5
	Supreme	15.1	14.8	12.8	10.7
	Astral	33.8	28.6	21.3	18.0
EV/OCF	Finolex	32.3	17.7	17.8	16.9
	Supreme	24.7	20.7	18.0	15.8
	Astral	78.2	41.1	34.1	28.0
FCF yield %	Finolex	2.0%	4.7%	4.3%	4.8%
	Supreme	2.1%	1.6%	2.8%	4.0%
	Astral	-0.6%	0.9%	1.5%	2.0%

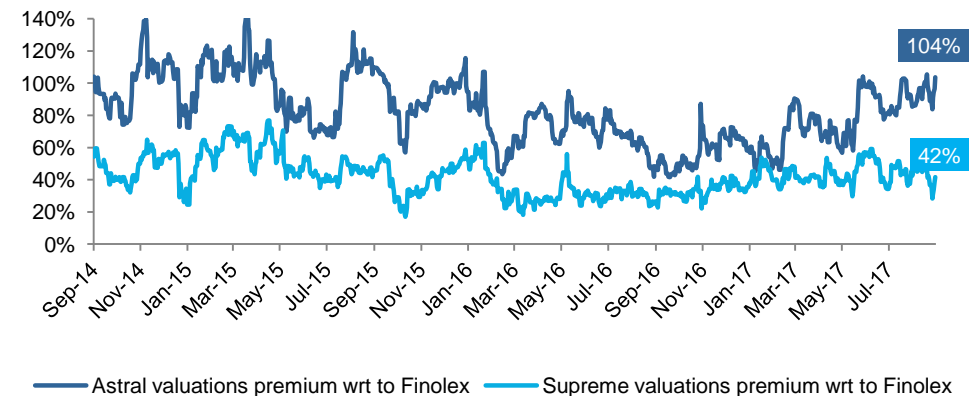
Source Company, Spark Capital

Profitability Comparison with Astral and Supreme

	Company name	FY17	FY18E	FY19E	FY20E
EBITDA margins %	Finolex	21.8%	21.6%	21.9%	20.5%
	Supreme	17.1%	15.8%	16.3%	16.5%
	Astral	14.0%	14.0%	14.8%	14.9%
RoE %	Finolex	21.0%	19.6%	19.4%	18.8%
	Supreme	28.6%	22.6%	23.4%	23.4%
	Astral	18.6%	19.3%	22.4%	22.1%
RoIC %	Finolex	21.3%	20.5%	21.1%	20.8%
	Supreme	22.0%	19.6%	20.7%	22.5%
	Astral	17.2%	17.6%	21.8%	23.2%
Net debt to Equity %	Finolex	0.02	0.01	0.01	0.01
	Supreme	0.02	(0.00)	(0.07)	(0.15)
	Astral	0.25	0.14	0.03	(0.06)

Source Company, Spark Capital

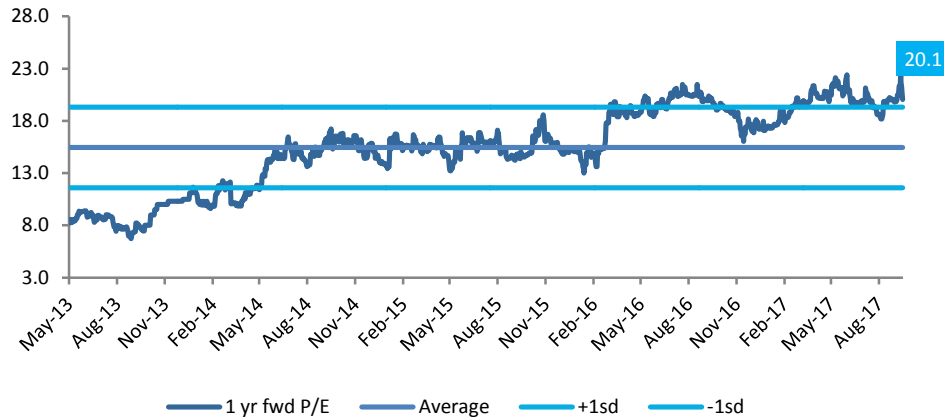
Supreme and Astral valuations premium w.r.t Finolex



Source Company, Spark Capital

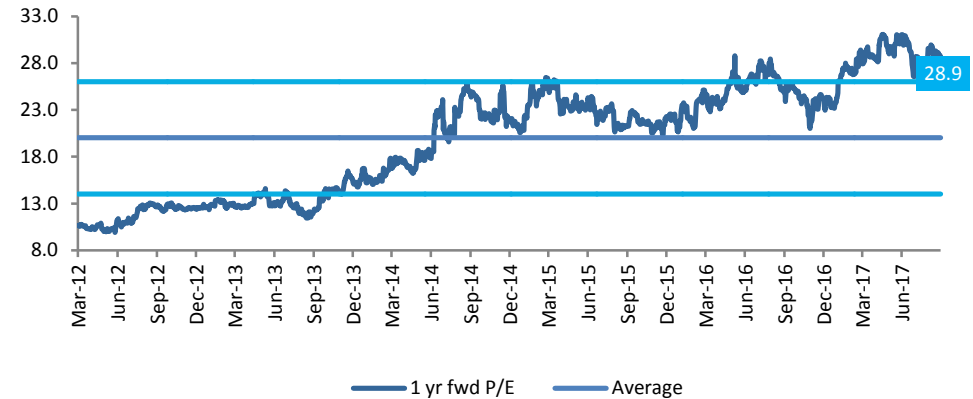
Valuations band chart

Finolex 12 month forward P/E



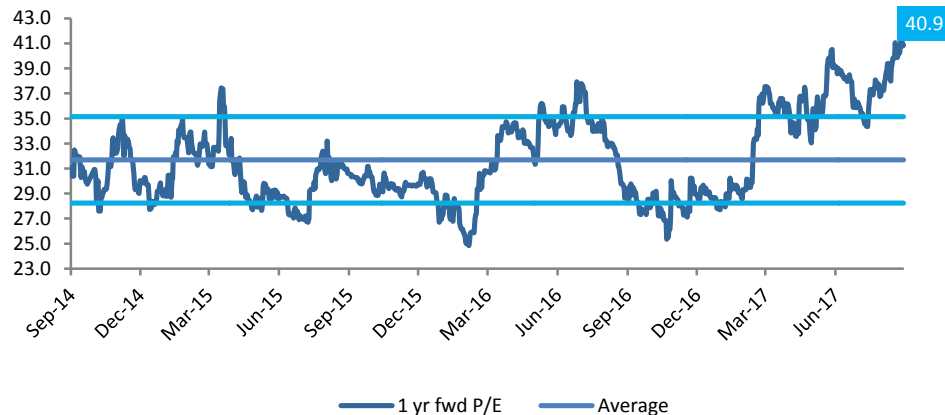
Source Company, Spark Capital

Supreme Industries 12 month forward PE



Source Company, Spark Capital

Astral 12 month forward P/E



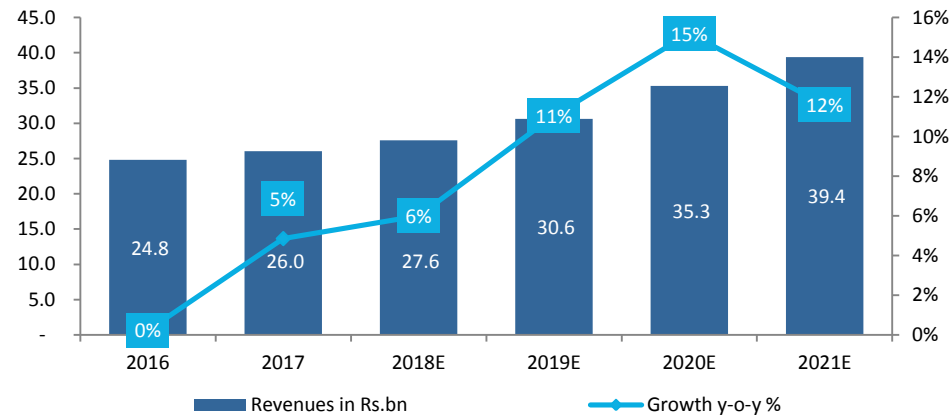
Source Company, Spark Capital

Valuations:

- FIL EBITDA profile is now more skewed towards valued added PVC pipes business (~70%) versus PVC resin business (23%).
- FIL stock still trades at a significant discount to its peers Astral (45% discount) and Supreme Industries (35% discount). This despite its market leading presence in PVC pipes segment, high margins profile, superior or on par cash flow/balance sheet/return ratio profile (refer slide no 28).
- We attribute 20x FY19E EPS, which is still at a 30-50% discount to its peers and attribute Rs.85/share towards its 14% investments in Finolex cables and 46% stake in Finolex Plasson to arrive at a target price of Rs.730/share, implying an upside of ~20% from current levels.

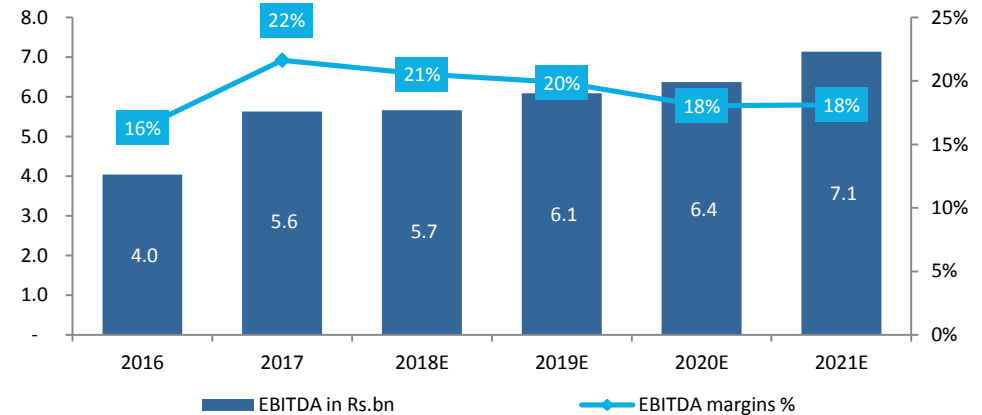
Consolidated Financials

Revenue and revenue growth



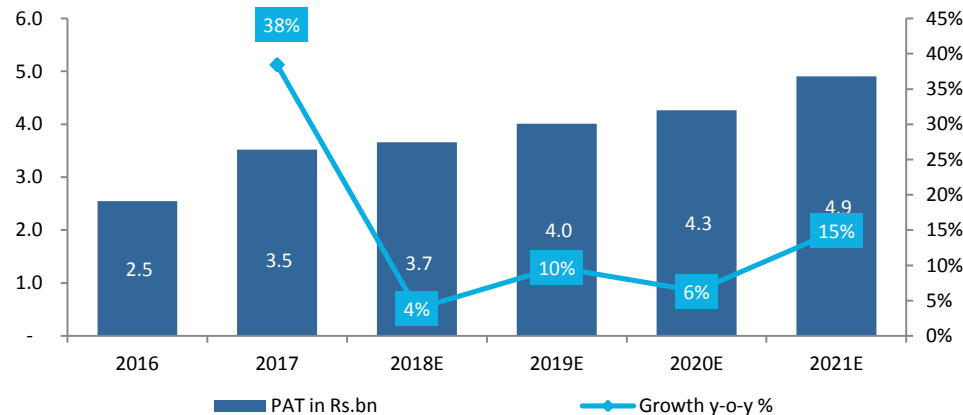
Source Company, Spark Capital

EBITDA and EBITDA margins



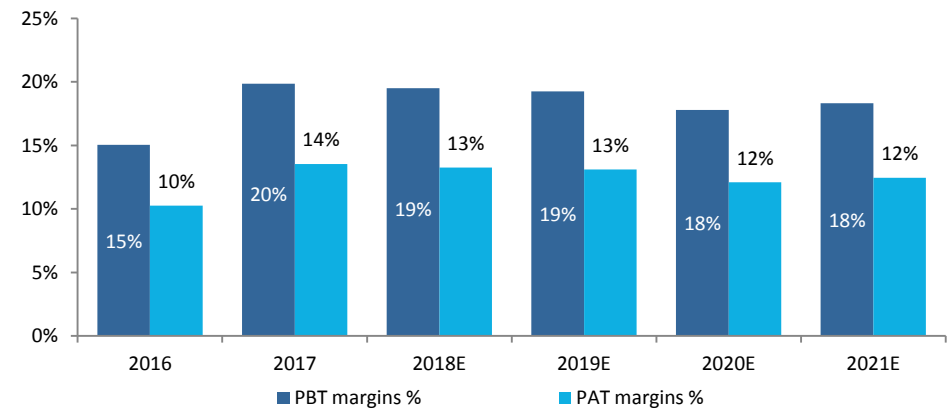
Source Company, Spark Capital

PAT and PAT growth %



Source Company, Spark Capital

PBT and PAT margins



Source Company, Spark Capital

Corporate Governance

Non Executive directors details and Remunerations

Name of the Director/KMP	Designation	Sitting Fees in Rs.mn	Salary and Perquisites in Rs.mn	% increase in remuneration FY2016-17	No. of shares	% of shares
Mr. Prakash P. Chhabria	Executive Chairman		115.3	20%	1,707,49	0.14
Mr. Sanjay S. Math	Managing Director with effect from 01/12/2016)		25.9	43%	Nil	
Mr. Anil V. Whabi	Director Finance (with effect from 26/08/2016)		12.8	60%	Nil	
Mr. Sanjay K. Asher	Non- Executive Director	0.28	1.8	82%	Nil	
Mr. Kanaiyalal N. Atmaramani	Non- Executive Director	0.04	1.9	67%	Nil	
Mrs. Ritu P. Chhabria	Non- Executive Director	0.28	1.8	89%	4,450	0.004
Mr. Dara N. Damania	Non- Executive Director	0.34	1.8	61%	900	0.001
Mr. Shrikrishna N. Inamdar	Non- Executive Director	0.44	2.4	69%	2,000	0.002
Mr. Prabhakar D. Karandikar	Non- Executive Director	0.64	2.1	62%	Nil	
Dr. Sunil U. Pathak	Non- Executive Director	0.64	2.1	47%	300	
Ms. .Vidya R. Shembekar	Company Secretary and KMP (w.e.f. 8/12/2016)		1.1		Nil	

Comparison of Key personnel's remuneration with employees

The median remuneration of employees of the Company during the financial year was	Rs. 0.46mn
Increase in the median remuneration of employees	7.7%
Increase in total remuneration of Key Managerial Personnel (KMP)	27.1%
Average increase in remuneration other than KMP's during 2015-16	11.1%
Increase in Company's Profit before Tax	39.0%

Number of Board Meetings

Name of the Directors	Held	Attended	Last AGM
Mr. Prakash P. Chhabria	5	5	Yes
Mr. Sanjay K. Asher	5	5	Yes
Mr. Kanaiyalal N. Atmaramani	5	4	No
Mrs. Ritu P. Chhabria	5	5	Yes
Mr. Dara N. Damania	5	4	Yes
Mr. Anil V. Whabi*		2	Yes
Mr. Shrikrishna N. Inamdar	5	4	Yes
Dr. Sunil U. Pathak	5	5	Yes

Financial Summary

Abridged Financial Statements									
Rs. mn	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E	FY21E
Profit & Loss									
Revenue	21,448	24,530	24,762	24,819	26,024	27,584	30,632	35,288	39,382
EBITDA	2,627	3,268	1,840	4,044	5,630	5,665	6,091	6,369	7,141
Depreciation	544	623	587	506	550	601	704	797	856
EBIT	2,082	2,645	1,253	3,539	5,080	5,064	5,388	5,572	6,285
Other Income	334	437	202	396	243	426	577	759	984
Interest expense	514	664	598	447	153	113	64	56	56
Exceptional items	-	-	50	-245	-	-	-	-	-
PBT	1,902	2,418	808	3,733	5,170	5,378	5,901	6,275	7,213
Reported PAT (after minority interest)	1,361	1,701	478	2,544	3,522	3,657	4,013	4,267	4,905
Adj PAT	1,361	1,701	428	2,789	3,522	3,657	4,013	4,267	4,905
EPS (Rs.)	11	14	3	22	28	29	32	34	40
Balance Sheet									
Net Worth	7,212	7,897	7,874	15,698	22,914	24,853	26,850	28,877	31,243
Deferred Tax	936	1,063	1,108	1,276	1,316	1,316	1,316	1,316	1,316
Total debt	8,395	7,134	6,371	2,115	942	442	342	342	342
Other liabilities and provisions	1,992	1,901	1,239	1,965	2,079	2,163	2,329	2,581	2,803
Total Networth and liabilities	18,534	17,996	16,591	21,055	27,251	28,775	30,836	33,116	35,703
Gross Fixed assets	17,710	18,500	18,939	8,930	9,508	10,508	12,008	13,508	15,008
Net fixed assets	8,795	9,052	8,678	8,470	8,517	8,916	9,712	10,415	11,060
Capital work-in-progress	506	325	104	66	217	217	217	217	217
Goodwill	0	0	0	27	35	35	35	35	35
Investments	3,596	2,215	1,797	8,172	12,222	12,222	12,222	12,222	12,222
Cash and Bank Balances	90	209	123	104	163	1,043	1,515	2,043	3,037
Loans & advances and other assets	2,182	1,840	1,817	1,999	2,273	2,409	2,675	3,082	3,439
Net working capital	3,364	4,355	4,074	2,217	3,824	3,933	4,460	5,102	5,694
Total assets	18,534	17,996	16,591	21,055	27,251	28,775	30,836	33,116	35,703
Capital Employed	16,325	15,319	14,638	16,029	20,835	24,576	26,243	28,205	30,402
Invested Capital (CE - cash - CWIP)	13,118	13,538	13,726	14,797	19,575	23,407	24,399	25,860	27,296
Net Debt	5,982	5,985	5,697	324	213	(1,167)	(1,739)	(2,267)	(3,261)
Cash Flows									
Cash flows from Operations (Pre-tax)	3,284	3,172	2,452	6,879	3,989	5,931	6,041	6,332	7,397
Cash flows from Operations (post-tax)	2,744	2,455	2,122	5,690	2,342	4,210	4,153	4,324	5,089
Capex	(1,186)	(705)	(312)	(326)	(944)	(1,000)	(1,500)	(1,500)	(1,500)
Free cashflows	1,558	1,750	1,810	5,364	1,397	3,210	2,653	2,824	3,589
Free cashflows (post interest costs)	1,377	1,523	1,415	5,313	1,487	3,523	3,166	3,527	4,517
Cash flows from Investing	619	1,103	183	(772)	479	(1,000)	(1,500)	(1,500)	(1,500)
Cash flows from Financing	(3,563)	(3,439)	(2,391)	(4,937)	(2,761)	(2,330)	(2,180)	(2,296)	(2,595)
Total cash & liquid investments	2,413	1,150	674	1,791	729	1,608	2,081	2,608	3,602

Financial Summary

Growth and Ratios	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E	FY21E
Key variables (sector specific)									
Pipes capacity in mt	210,735	230,735	250,000	280,000	290,000	340,735	390,735	440,735	490,735
Pipes revenues	13,559	15,113	16,395	17,821	19,545	20,931	25,534	30,954	37,043
PVC resin revenues	7,115	8,664	7,680	6,696	6,347	6,514	4,944	4,157	2,141
Growth ratios									
Revenue	2.1%	14.4%	0.9%	0.2%	4.9%	6.0%	11.1%	15.2%	11.6%
EBITDA	21.2%	24.4%	-43.7%	119.8%	39.2%	0.6%	7.5%	4.6%	12.1%
Adj PAT	81.2%	25.0%	-74.9%	551.9%	26.3%	3.8%	9.7%	6.3%	14.9%
Margin ratios									
EBITDA	12.2%	13.3%	7.4%	16.3%	21.6%	20.5%	19.9%	18.0%	18.1%
Adj PAT	6.3%	6.9%	1.7%	11.2%	13.5%	13.3%	13.1%	12.1%	12.5%
Performance ratios									
Pre-tax OCF/EBITDA	125.0%	97.1%	133.3%	170.1%	70.9%	104.7%	99.2%	99.4%	103.6%
OCF/IC (%)	21%	18%	15%	38%	12%	18%	17%	17%	19%
RoE (%) (Adjusted for OCI)	20%	23%	6%	21%	21%	20%	19%	19%	20%
RoCE (%)	11%	14%	6%	17%	17%	15%	15%	15%	16%
RoCE (Pre-tax)	15%	19%	10%	26%	29%	24%	23%	23%	25%
RoIC (Pre-tax)	16%	20%	9%	25%	30%	24%	23%	22%	24%
Fixed asset turnover (x)	2.6	2.7	2.8	2.9	3.1	3.2	3.3	3.5	3.7
Total asset turnover (x)	1.1	1.3	1.4	1.3	1.1	1.0	1.0	1.1	1.1
Financial stability ratios									
Net Debt to Equity (x)	0.8	0.8	0.7	0.0	0.0	(0.0)	(0.1)	(0.1)	(0.1)
Net Debt to EBITDA (x)	2.3	1.8	3.1	0.1	0.0	(0.2)	(0.3)	(0.4)	(0.5)
Interest cover (x)	5	4	4	13	15	37	65	78	91
Cash conversion days	57	65	60	33	54	52	53	53	53
Working capital days	60	64	69	41	66	64	65	65	65
Valuation metrics									
Fully Diluted Shares (mn)	124	124	124	124	124	124	124	124	124
Market cap (Rs.mn)	75,693	75,698	75,698	75,698	75,698	75,698	75,698	75,698	75,698
P/E (x)	55.6	44.5	176.9	27.1	21.5	20.7	18.9	17.7	15.4
P/OCF(x)	27.6	30.8	35.7	13.3	32.3	18.0	18.2	17.5	14.9
EV (Rs.mn) (ex-CWIP)	81,174	81,358	81,291	75,956	75,694	74,314	73,742	73,214	72,220
EV/ EBITDA (x)	30.9	24.9	44.2	18.8	13.4	13.1	12.1	11.5	10.1

FIL is the market leader in Agri pipes and expanding aggressively in plumbing pipes by adding capacities and tieup with Lubrizol for CPVC pipes offerings. FIL has strong return ratio profile of more than 20%. Also, we expect FIL to generate cumulative operating cash flow of Rs.13bn and free cash flow of Rs.10bn (Implied free cash flow yield of 5%) despite capacity addition over next three years.

Consistent volume growth led by new capacity expansion and foray into CPVC

	FY12	FY16	FY17	FY18E	FY19E	FY20E	FY21E
Revenue	20,998	24,819	26,024	27,584	30,632	35,288	39,382
Ebitda	2,168	4,044	5,630	5,665	6,091	6,369	7,141
Margins	10%	16%	22%	21%	20%	18%	18%
PAT	751	2,789	3,522	3,657	4,013	4,267	4,905

Strong ROE's of 20% and debt free balance sheet despite capacity expansion

	FY12	FY16	FY17	FY18E	FY19E	FY20E	FY21E
RoE	12%	21%	21%	20%	19%	19%	20%
Leverage	0.97	0.02	0.01	(0.05)	(0.06)	(0.08)	(0.10)
Working capital days	70	41	66	64	65	65	65
CFO (Rs nm)	1,545	5,690	2,342	4,210	4,153	4,324	5,089

Multiples to sustain

PE multiple	FY21E EPS	Price target
20x	39.5	950
23x	39.5	1,060

Cumulative Dividends of Rs. 50

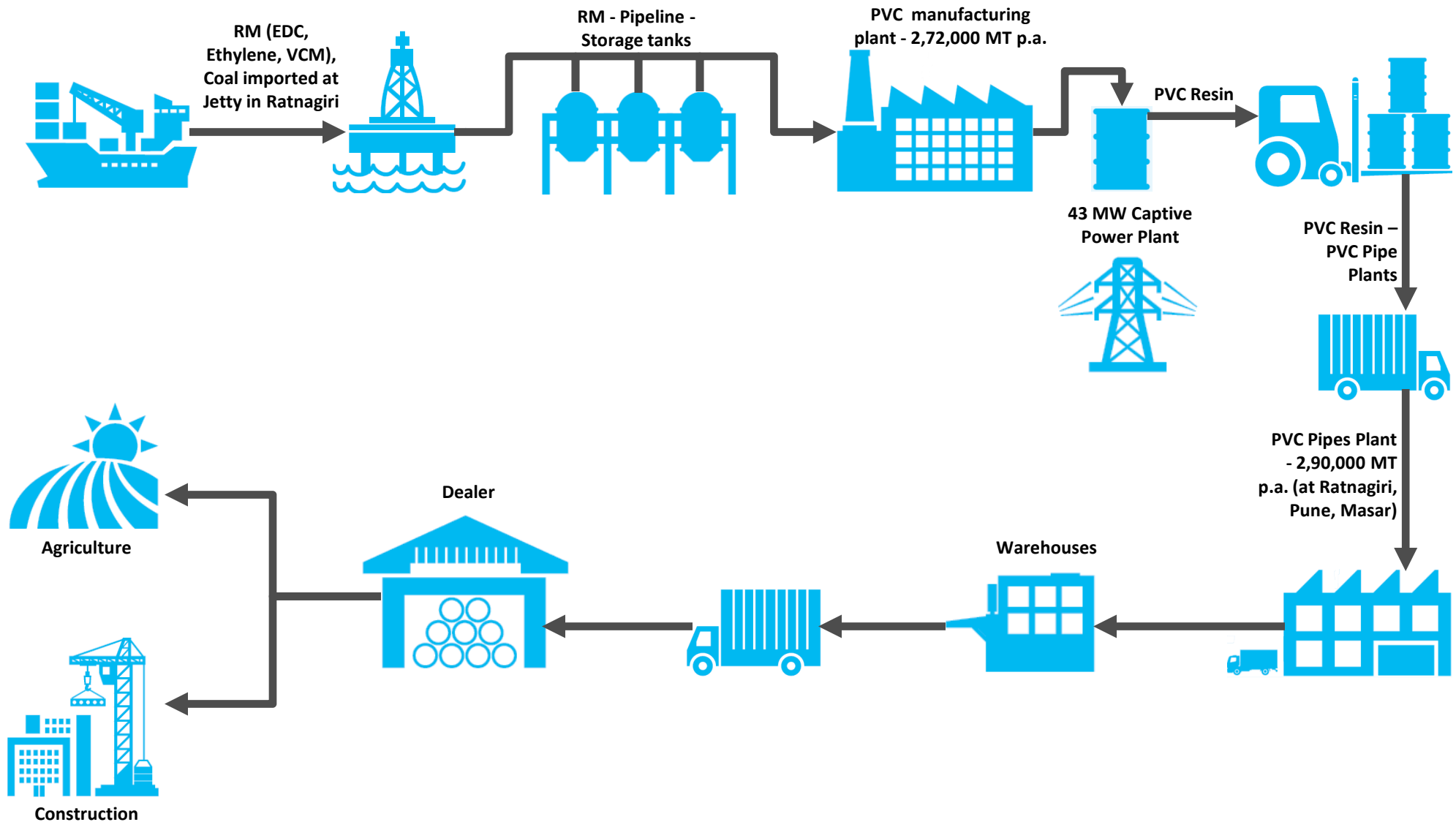
EPS CAGR of 10% over FY18-21E, exit multiple of 23x

TOTAL
RETURN OF
75%

Entry = Rs. 610 @ 21X FY18E EPS, Exit at 23x FY21E EPS

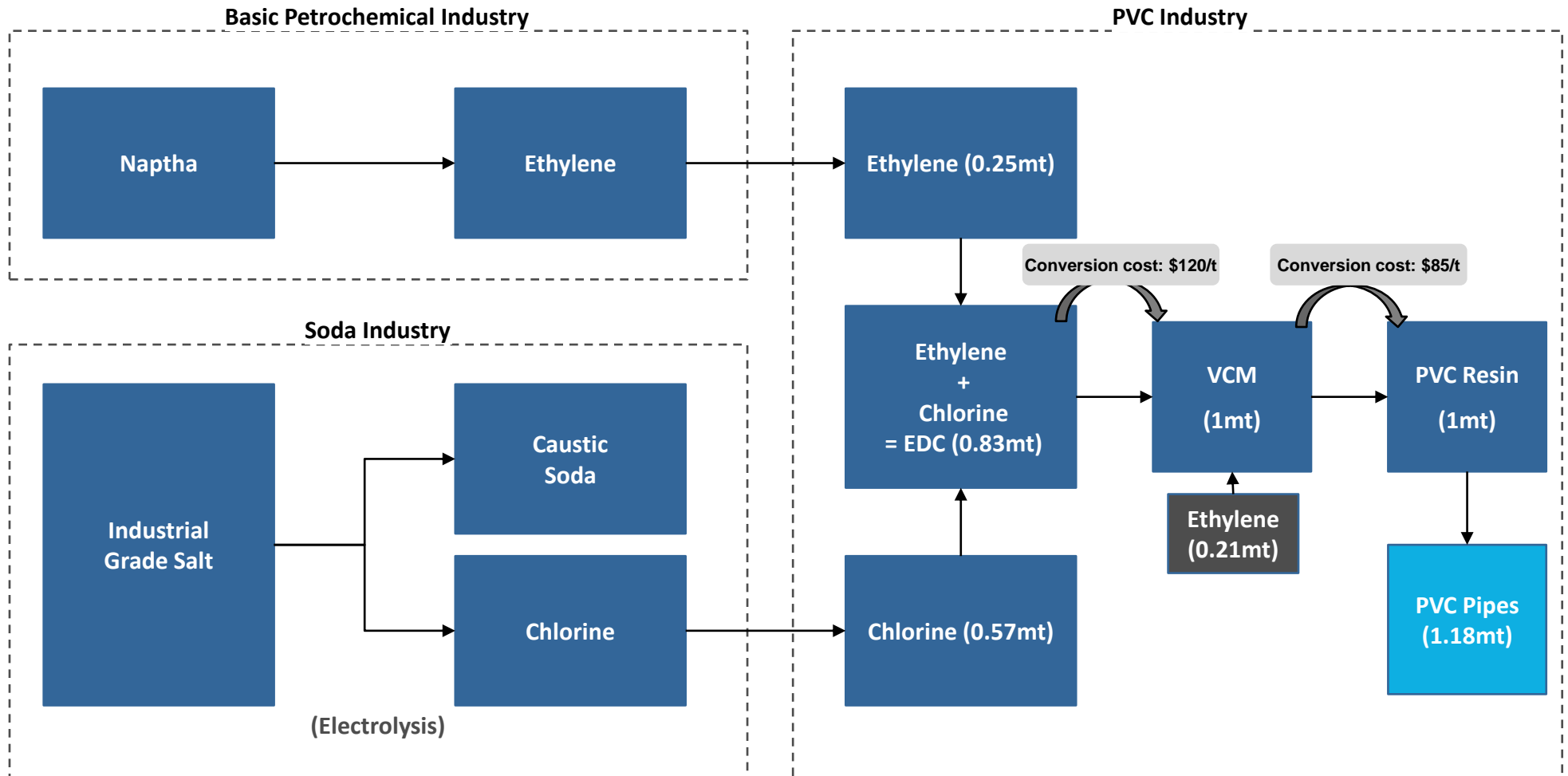
APPENDIX

PVC Manufacturing Process



PVC resin manufacturing Chain

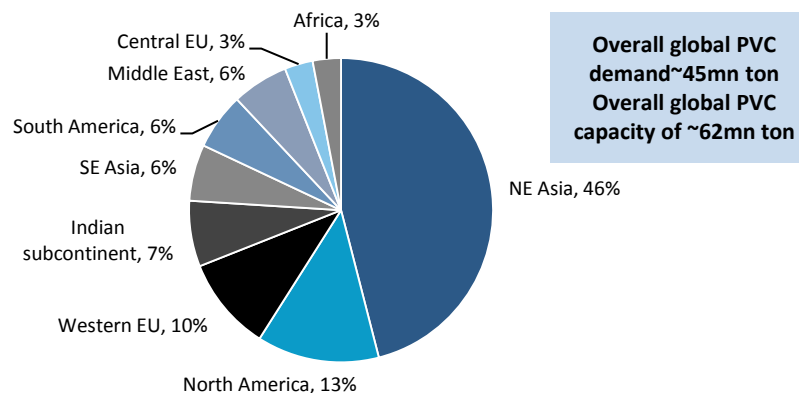
Flowchart depicting proportion of inputs required to manufacture PVC resin and Pipes



Source Company, Spark Capital

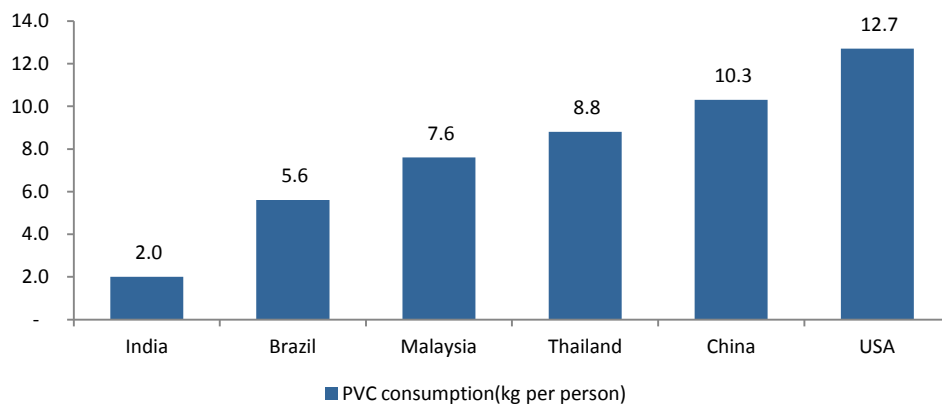
PVC Resin Demand

Global PVC demand



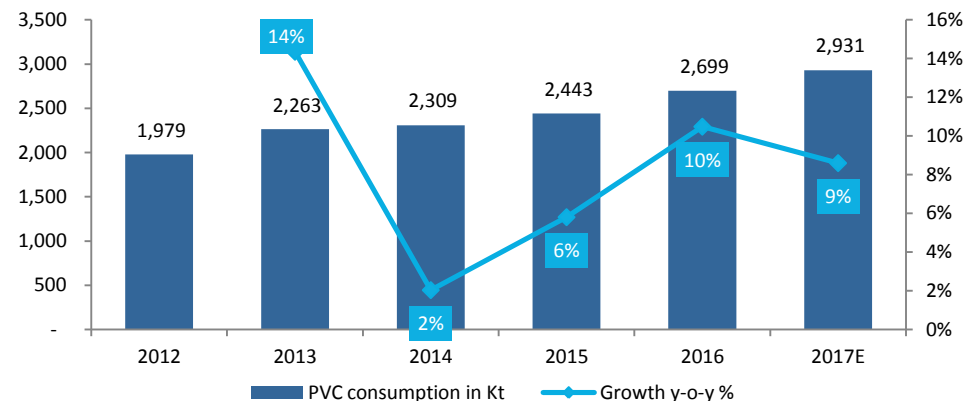
Source: Spark Capital

But PVC consumption remains low compared to other emerging markets



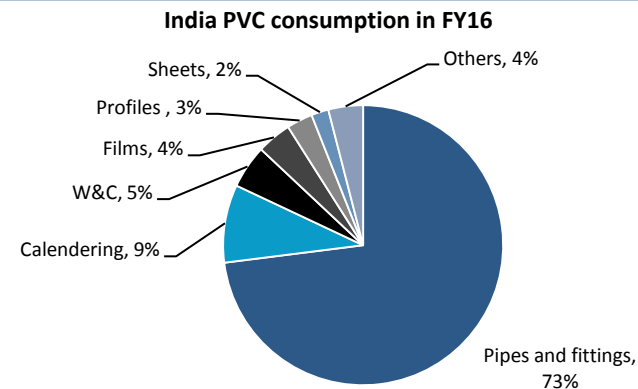
Source: Spark Capital

PVC Consumption in India



Source: Spark Capital

Demand from Pipes and fittings contributed 73% to overall PVC demand in India



Source: Spark Capital

Demand Dynamics in India

Capacity in India

(In kt)	Type	Actual					Projected
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
RIL	Susp	625	625	670	670	750	750
Finolex	Susp	270	270	270	270	270	270
Chemplast	Susp	250	260	260	260	260	260
DCW	Susp	90	90	90	90	90	90
Shriram	Susp	70	70	70	70	70	70
Total		1,350	1,315	1,360	1,360	1,440	1,440
Chemplast	Emulsion	30	30	30	30	30	30

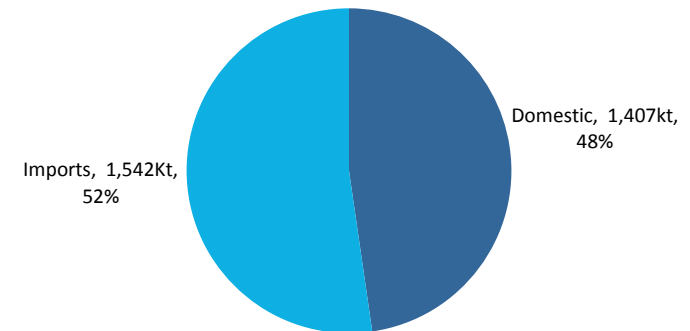
Source: Spark Capital

PVC demand in India in last 5 years

(kt)	Type	Actual					Projected
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Capacity		1,305	1,315	1,360	1,360	1,440	1,440
Production	Susp	1,242	1,201	1,293	1,256	1,354	1,406
Dom Sales	Susp	1,230	1,215	1,283	1,271	1,364	1,407
Imports	Susp	749	1,048	1,026	1,172	1,335	1,542
Exports	Susp						
Consumption		1,979	2,263	2,309	2,443	2,699	2,931

Source Company, Spark Capital

Majority of consumption is met through imports

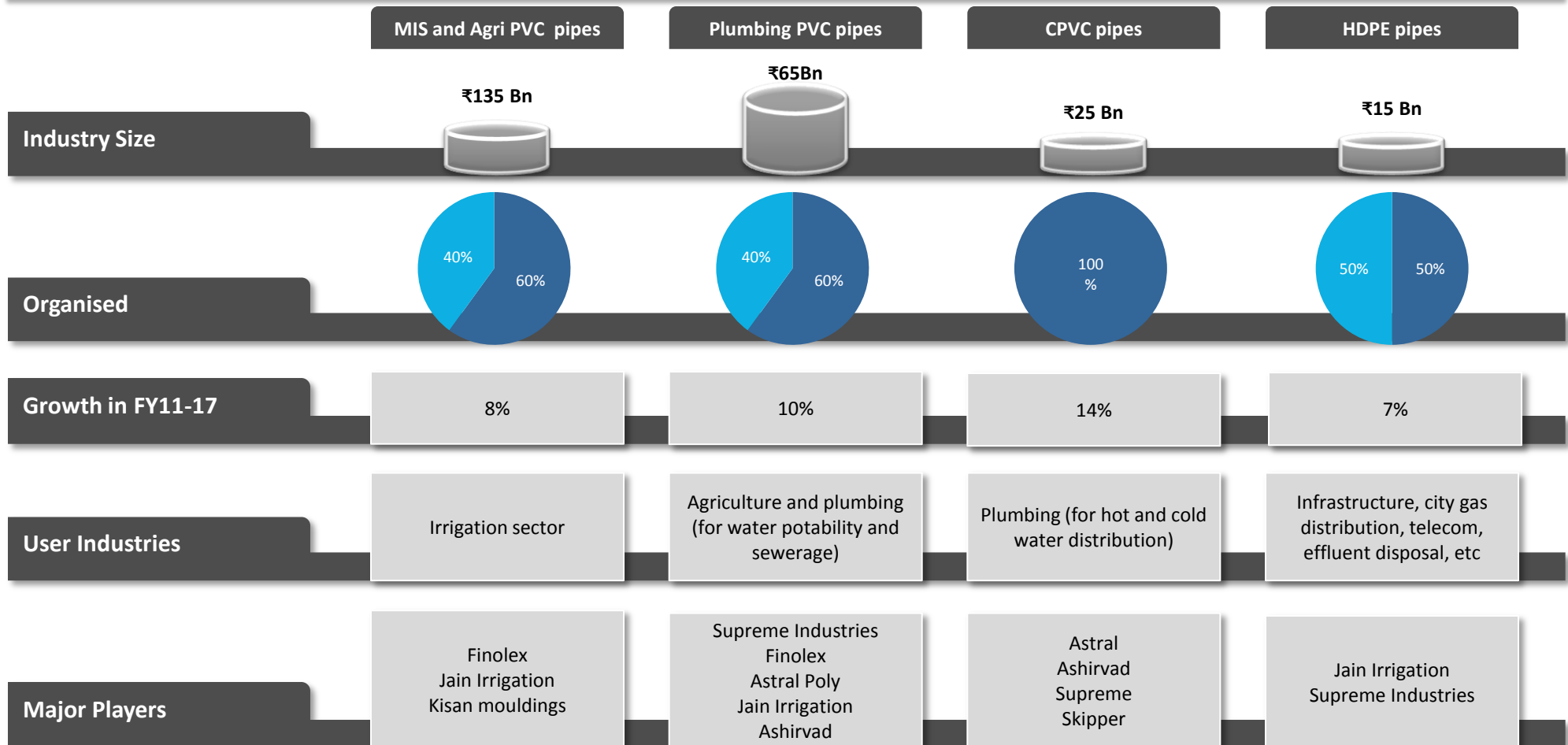


Source Company, Spark Capital

Plastic Pipe Industry Market at a Glance

Plastic Pipes – Demand break up of Pipes Industry size (~Rs240bn)

Business dynamics of key segments



Spark Disclaimer

Absolute Rating Interpretation	BUY	Stock expected to provide positive returns of >15% over a 1-year horizon	REDUCE	Stock expected to provide returns of <5% -- -10% over a 1-year horizon
	ADD	Stock expected to provide positive returns of >5% -- <15% over a 1-year horizon	SELL	Stock expected to fall >10% over a 1-year horizon

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Investment banking relationship with the company covered	No
Spark Capital's ownership/any other financial interest in the company covered	No
Associates of Spark Capital's ownership more than 1% in the company covered	No
Any other material conflict of interest at the time of publishing the research report	No
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