ElaraCapital

APL Apollo Tubes

Global Markets Research

Piping gains

Opportunity knocks: ERW pipes CAGR at ~9% over FY16-19E

The domestic electric resistance welded (ERW) pipes market size was ~7.5mn tonnes during FY16, and we expect it to grow at a CAGR of ~9% over FY16-19E to ~10mn tonnes by FY19E. We believe bulk of the growth will come from the construction and infra segments (airports, mall & prefabricated structures) using the structural pipes followed by demand from traditional applications (such as transportation of water & sewage and oil & gas).

Going large: volume CAGR of ~21% over FY16-19E

APL Apollo Tubes (APL) is expanding pipes capacity by ~54% to 2mn tpa by Q1FY18 from 1.3mn tpa. It is setting up a greenfield plant with 200,000 tpa capacity at Raipur in Chhattisgarh. The company is also enhancing its capacity by another 500,000 tpa at its existing locations including Raipur using the direct forming technology (DFT) to produce pipes for structurals. With new capacity at Raipur, the firm will target Central & East India markets where its presence is low. We expect a volume CAGR of ~21% during FY16-19E to ~1.6mn tonnes in FY19E.

Watching it grow: advantage DFT technology, better product mix

DFT technology will help in reducing ~10% conversion cost on account of lower wastage and raw material usage. It will also provide the flexibility to cater to more customized and small sized orders, helping it to earn higher margin. Further, it plans to increase volume of high margin galvanized pipes in its product profile going forward. With this we expect EBITDA margin to expand to 8.3% in FY19E from 6.7% in FY16 with an EBITDA CAGR of 30% over FY16-19E.

Strong balance sheet: positive free cashflow from FY17

APL has strong balance sheet despite aggressive capacity addition. Its net debt-equity ratio has remained in the range of 0.9-1.2x in the past five years. With improvement in cashflow, it may further deleverage its balance sheet in the next three years. We expect the net debt-equity to go down to 0.5x in FY19E from 1.1x in FY16.

Rating: Buy

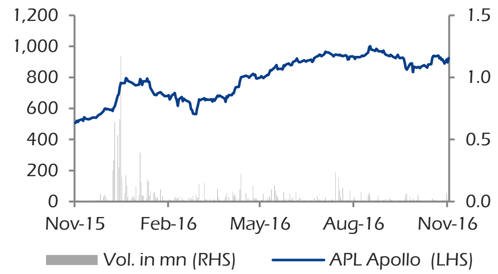
Target Price: INR 1,596
Upside: 73%
CMP: INR 925 (as on 4 November 2016)

Key data

Bloomberg /Reuters Code	APAT IN/APLA.BO
Current /Dil Shares O/S (mn)	24/24
Mkt Cap (INR bn/USD mn)	22/323
Daily Volume (3M NSE Avg)	18,416
Face Value (INR)	10
1 US$= INR 66.8	

Note: *as on 4 November 2016; Source: Bloomberg

Price & Volume



Source: Bloomberg

Shareholding (%)	Q3FY16	Q4FY16	Q1FY17	Q2FY17
Promoter	40.6	40.6	40.6	38.8
Institutional Investor	36.6	17.0	16.9	17.9
Other Investor	10.5	29.7	29.8	30.4
General Public	12.3	12.7	12.6	13.0

Source: BSE

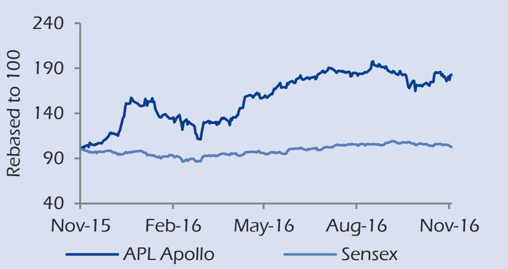
Price performance (%)	3M	6M	12M
Sensex	(1.6)	8.7	2.7
APL Apollo	(1.2)	14.6	76.7
Goodluck India	(14.1)	14.2	12.3
Rama Steel Tubes	24.13	54.87	55.64

Source: Bloomberg

Valuation

We initiate coverage of APL Apollo Tubes with a **Buy** rating and a TP of INR 1,596, implying 73% upside from the current levels. Our TP is based on 7.0x FY19E EV/EBITDA. The stock is currently trading at 4.4x FY19E EV/EBITDA and 6.7x FY19E P/E. We believe it is slated for a further re-rating on 1) a high growth trajectory with an earning CAGR of 47% over FY16-19E, 2) high ROE of 33% in FY19 from 19% in FY16, 3) free cashflow generation of INR 5bn over FY16-19E, and 4) likely reduction in the net debt-equity ratio to 0.5x FY19E from 1.1x FY16.

Price performance



Source: Bloomberg

Key Financials

YE March	Revenue (INR mn)	YoY (%)	EBITDA (INR mn)	EBITDA margin (%)	Adj PAT (INR mn)	YoY (%)	Fully DEPS (INR)	RoE (%)	RoCE (%)	P/E (x)	EV/EBITDA (x)
FY16	42,136	34.3	2,817	55.1	1,006	57.7	42.9	18.9	14.5	17.5	8.2
FY17E	45,969	9.1	3,697	31.3	1,646	63.7	70.2	26.1	16.6	13.2	7.6
FY18E	57,817	25.8	4,604	24.5	2,182	32.5	93.1	28.1	18.7	9.9	6.1
FY19E	74,224	28.4	6,158	33.8	3,222	47.7	137.5	32.8	23.2	6.7	4.4

Note: pricing as on 4 November 2016; Source: Company, Elara Securities Estimates

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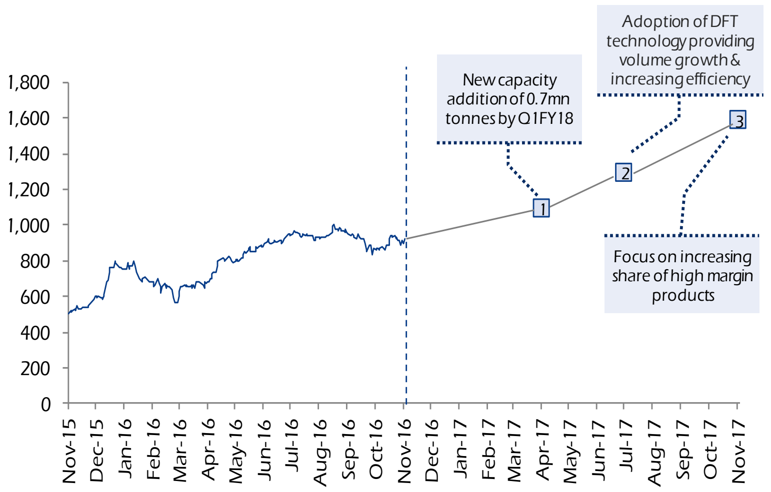
Elara Securities (India) Private Limited

Valuation trigger



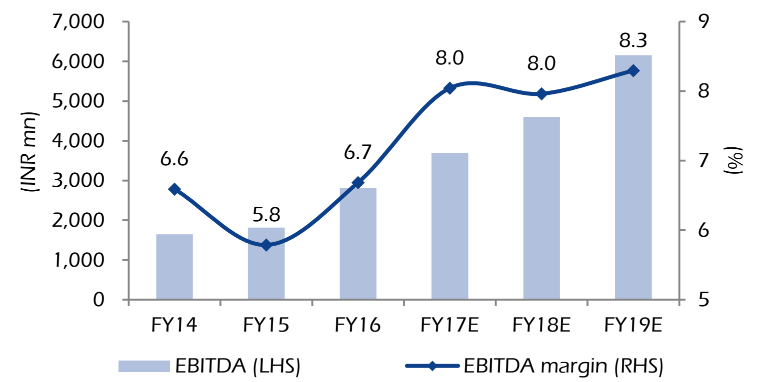
Source: Bloomberg, Elara Securities Estimate

Valuation overview

(INR mn)	FY19E
EBITDA	6,158
EV/EBITDA (x)	7.0
EV	43,103
Average net debt	5,693
Market cap	37,409
No of shares (mn)	23
TP (INR)	**1,596**
CMP (INR)	925
Upside (%)	73

Note: pricing as on 4 November 2016; Source: Elara Securities Estimate

Valuation: higher volume, better product mix to drive margin



Source: Company, Elara Securities Estimates

Investment summary

- ERW pipe industry to grow at ~9% CAGR over FY16-FY19E.
- Volumes to grow at ~21% CAGR during FY16-19E to 1.6mn tonnes
- EBITDA CAGR of 30% over FY16-19E
- Strong balance sheet, improved return ratios would lead to free cashflow generation

Valuation trigger

1. New capacity addition of 0.7mn tonnes by Q1FY18, leading to continued volume growth
2. Adoption of DFT technology providing volume growth and increasing internal efficiency
3. Focus on increasing share of high margin products in the product mix

Key risks

- Fluctuations in steel prices; a sharp dip in steel prices could lead to inventory loss
- Delay in capacity addition may hamper volume growth
- Increased competition may hurt margin
- Threat of substitution may lead to lower demand

Our assumptions

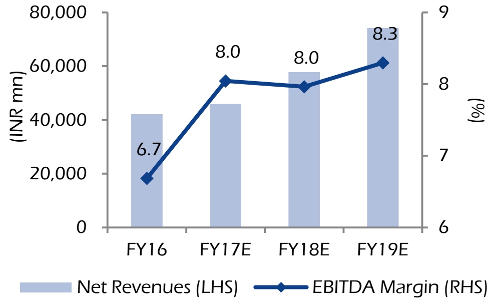
- Volume CAGR of ~21% during FY16-19E to 1.6mn tonnes
- Margin improvement to 8.3% in FY19E from 6.7% in FY16

Financials

Income Statement (INR mn)	FY16	FY17E	FY18E	FY19E
Net Revenues	42,136	45,969	57,817	74,224
EBITDA	**2,817**	**3,697**	**4,604**	**6,158**
Add:- Non operating Income	103	63	4	17
OPBIDTA	2,919	3,761	4,607	6,175
Less :- Depreciation & Amortization	341	533	620	657
EBIT	**2,578**	**3,228**	**3,988**	**5,518**
Less:- Interest Expenses	695	733	682	636
PBT	**1,630**	**2,495**	**3,306**	**4,882**
Less :- Taxes	624	848	1,124	1,660
Add/(Less): Associates/(Minorities)	-	-	-	-
Adjusted PAT	**1,006**	**1,646**	**2,182**	**3,222**
Add/Less: - Extra-ordinaries	-	-	-	-
Reported PAT	**1,006**	**1,646**	**2,182**	**3,222**
Balance Sheet (INR mn)	**FY16**	**FY17E**	**FY18E**	**FY19E**
Share Capital	234	234	234	234
Reserves	5,441	6,692	8,351	10,799
Borrowings	6,506	6,506	6,156	5,656
Deferred Tax (Net)	859	859	859	859
Minority Interest	0	0	0	0
Other Liabilities	61	61	61	61
Total Liabilities	**13,101**	**14,352**	**15,661**	**17,609**
Gross Block	7,720	8,220	10,420	10,720
Less:- Accumulated Depreciation	1,058	1,591	2,211	2,867
Net Block	6,662	6,629	8,209	7,853
Add:- Capital work in progress	320	1,720	520	720
Investments	131	131	131	131
Cash & cash equivalents	14	69	30	394
Net Working Capital	5,382	5,210	6,177	7,919
Other Assets	593	593	593	593
Total Assets	**13,101**	**14,352**	**15,661**	**17,609**
Cash Flow Statement (INR mn)	**FY16**	**FY17E**	**FY18E**	**FY19E**
Cash profit adjusted for non cash items	2,448	2,849	3,480	4,498
Add/Less : Working Capital Changes	(2,335)	171	(967)	(1,742)
Operating Cash Flow	113	3,021	2,513	2,756
Less:- Capex	(1,256)	(1,900)	(1,000)	(500)
Free Cash Flow to Firm	(1,184)	1,121	1,513	2,256
Financing Cash Flow	809	(1,128)	(1,556)	(1,909)
Investing Cash Flow	(1,097)	(1,837)	(996)	(483)
Net change in Cash	**(175)**	**55**	**(39)**	**364**
Ratio Analysis	**FY16**	**FY17E**	**FY18E**	**FY19E**
Income Statement Ratios (%)				
Revenue Growth	34.3	9.1	25.8	28.4
EBITDA Growth	55.1	31.3	24.5	33.8
PAT Growth	57.7	63.7	32.5	47.7
EBITDA Margin	6.7	8.0	8.0	8.3
Net Margin	2.4	3.6	3.8	4.3
Return & Liquidity Ratios				
Int/PBIT	27.0	22.7	17.1	11.5
Net Debt/Equity (x)	1.1	0.9	0.7	0.5
ROE (%)	18.9	26.1	28.1	32.8
ROCE (%)	14.5	16.6	18.7	23.2
Per Share data & Valuation Ratios				
Diluted EPS (INR/Share)	42.9	70.2	93.1	137.5
EPS Growth (%)	57.7	63.7	32.5	47.7
Book Value	242.1	295.5	366.3	470.7
DPS (INR/Share)	10.0	14.0	18.6	27.5
P/E Ratio (x)	17.5	13.2	9.9	6.7
EV/EBITDA (x)	8.2	7.6	6.1	4.4
Price/Book (x)	3.1	3.1	2.5	2.0
Dividend Yield (%)	1.3	1.5	2.0	3.0

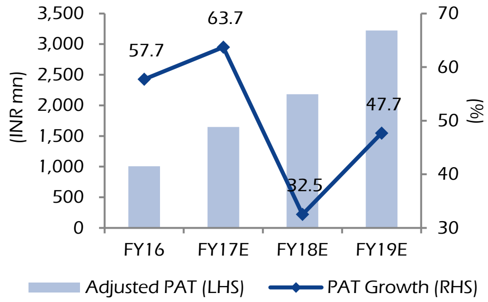
Note: pricing as on 4 November 2016; Source: Company, Elara Securities Estimate

Revenue & margin growth trend



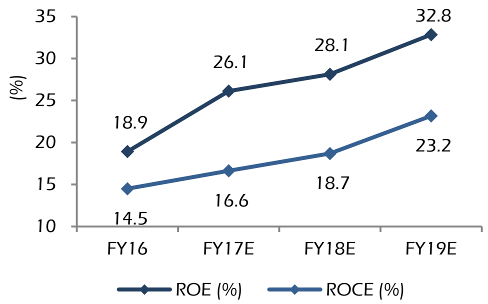
Source: Company, Elara Securities Estimate

Adjusted profit growth trend



Source: Company, Elara Securities Estimate

Return ratios



Source: Company, Elara Securities Estimate

Pipes

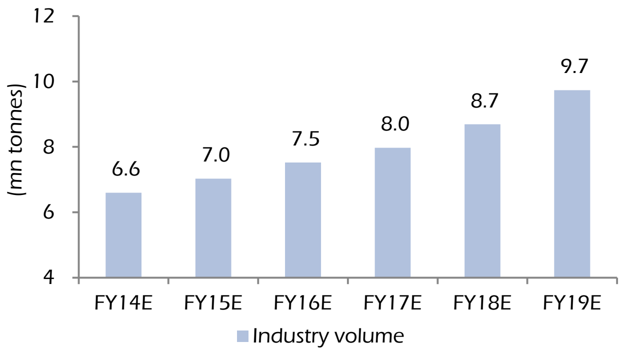
Opportunity knocks

- ERW pipes industry: CAGR of ~9% over FY16-19E, driven by structurals
- Shift towards organized space augurs well
- APL Apollo Tubes market share to rise to 16% in FY19E from 12% in FY16

ERW space to grow at a CAGR of ~9% in 3 years

The size of the ERW pipes domestic market is estimated to be ~7.5mn tonnes in FY16, which has grown at a CAGR of ~6% over FY13-16E. While traditionally ERW pipes were used to transport water & sewage and oil & gas, lately they have found new applications in structural support systems used in modern infrastructure: airports, malls, metros, bus-body, sprinklers and prefabricated structures. The growth has been primarily driven by increased demand from structurals while the demand from the traditional usage of ERW pipe has been low. Going forward, we expect the ERW pipe market to grow at a CAGR of ~9% over FY16-19E to ~10mn tonnes by FY19E, driven by higher demand from structurals.

Exhibit 1: Industry CAGR of ~9% over FY16-19E



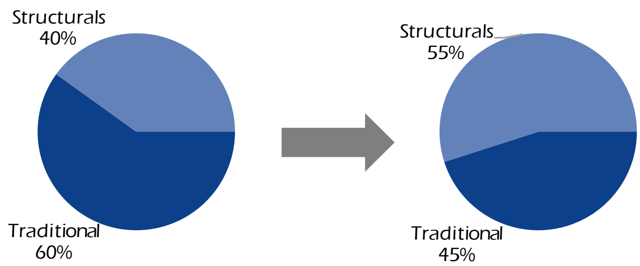
Source: Industry, Elara Securities Estimate

Structurals occupies the dominant position in ERW

Today, Structurals consist of ~55% of the ERW pipes market v/s ~40% in FY13. We believe its share will go further to ~60% by FY18E.

APL Apollo Tubes (APL) is primarily focused on the structurals space, which currently accounts for ~70% of its overall product portfolio v/s ~55% in FY13.

Exhibit 2: Increasing share of structurals in the ERW



Source: Industry, Elara Securities Research

The following are key end-user segments likely to drive demand for ERW pipes:

Construction and infrastructure

Steel pipes are being used extensively in the real estate, infrastructure and construction segment. They are used as conduits, support structures, and to make fences, railings & scaffolding. The pipes are used in constructing prefabricated structures which are replacing traditional construction methods. With the government's thrust on the infrastructure segment aided by recent policy reforms, we expect investments to rise over the next few years. GoI under its 'Make in India' campaign has announced USD1 trn investments for the infrastructure sector. Increased construction activities coupled with higher demand for new structural products augur well for steel pipe demand. Some key government initiatives likely to drive demand include:

- Investments in metro projects
- Housing for All by 2022
- 100 smart Cities

Water supply and sanitation

Steel pipes are essential for building infrastructure to supply clean drinking water and remove sewage. India lags behind the developed world in providing continued drinking water and sanitation facilities to the growing population; hence, the government is taking steps to implement various schemes to drive demand and increase investments. Higher investments will, in turn, drive demand for steel pipes. Some key government initiatives include:

- Atal Mission for Rejuvenation and Urban Transformation
- National Rural Drinking Water Programme

Irrigation

Irregular monsoon and falling ground water levels have necessitated the need for higher irrigation investments. The government hence is trying to maximize the reach of irrigation by undertaking various schemes, such as the Pradhan Mantri Krishee Sinchayee Yojna. As steel pipes are used in building sprinklers, drill rods, bore wells and water distribution submersible pumps, rising investments in irrigation will continue to drive demand for steel pipes.

However, we observe a replacement of steel pipes with PVC pipes in cases like bore wells.

City gas distribution (CGD)

The government is focusing on increasing CGD penetration. Various entities have entered the market to establish the CGD network in different locations and under-penetrated urban areas. As pipes are the most convenient way to transport these materials, increasing investment in the CGD segment and expanding CGD network will support steel pipe demand.

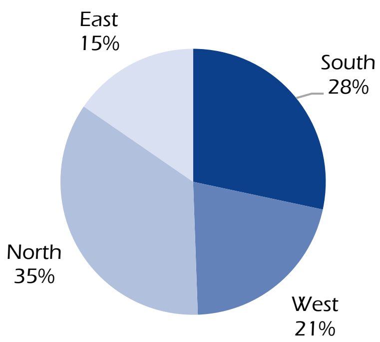
Automotives- the untapped market

ERW steel tubes can be used in automobile industry. Presently, the ERW industry lacks the technology to manufacture such products and hence the market is under penetrated. With the introduction of new DFT technology, APL can tap this market by producing new products which could be manufactured using higher precision and in required sizes. The OEM market currently has a potential of ~0.5mn tpa for steel tubes.

Shift to organized makers augurs well

The ERW pipe industry is highly fragmented. The unorganized producers still account for ~50% of it in India. These firms give regional competition to organized producers. Given the freight-intensive nature of the industry, it is largely a regional play with companies trying to cater to demand in nearby areas.

Exhibit 3: Geographical mix of ERW market; East lags (Market size: 7.5mn tonnes)



Source: Industry, Elara Securities Estimates

Currently, the industy has more players in the western and the northern regions which can satisfy its demand. However, South India receives material from East India to satisfy its demand.

Exhibit 4 Prevailing competition in the ERW industry

Balanced		Balanced	
North: ~1,390		West: ~1,370	
APL Apollo Tubes	475	APL Apollo Tubes	350
Jindal Industries	300	Bhushan Steel Ltd	300
Jindal Pipe (D.P.Jindal group)	200	Surya Roshni	250
Surya Roshni	200	Welspun Corp	200
Swastik Pipes	100	Maharashtra Seamless	200
Hitech	50	Rama Steel	72
Goodluck	40		
Rama Steel	24		
Deficit		**Surplus**	
South: ~575		East: 700	
Jindal Pipes (D.P.Jindal Group)	100	Tata Steel Ltd	400
APL Apollo Tubes	475	Jindal India (B.C. Jindal group)	300

Note: FY16 data; Source: Industry sources

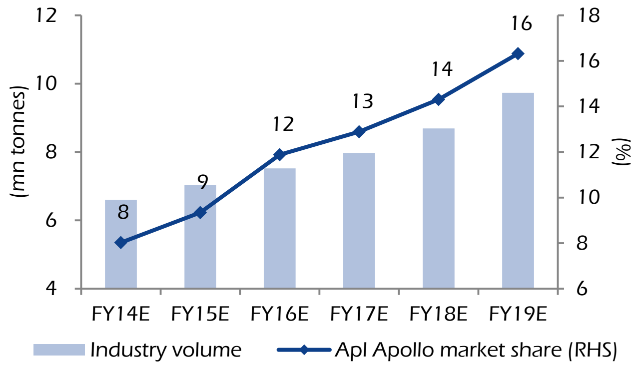
Implementation of GST a boon

Differential higher tax rates in different states often made the company's product uncompetitive in some of the states as compared to the unorganized players present in those states. The implementation of GST will give the organized players a level playing field in all the states and will lead to a shift in demand towards them.

APL market share to rise

In the past few years, organized producers like APL, through their improved product quality, consistent branding and aggressive marketing, have taken away market share from the unorganized firms. We expect this trend to continue. APL increased its market share from ~8% in FY14 to ~12% in FY16. We expect it to increase further it to ~16% by FY19E. Beside industry volume growth, the shift of market from unorganized companies would also lead to a volume CAGR of 21% to 1.6mn tonnes during FY16-19E.

Exhibit 5: Increasing market share to 16% in FY19E



Source: Company, Elara Securities Estimates

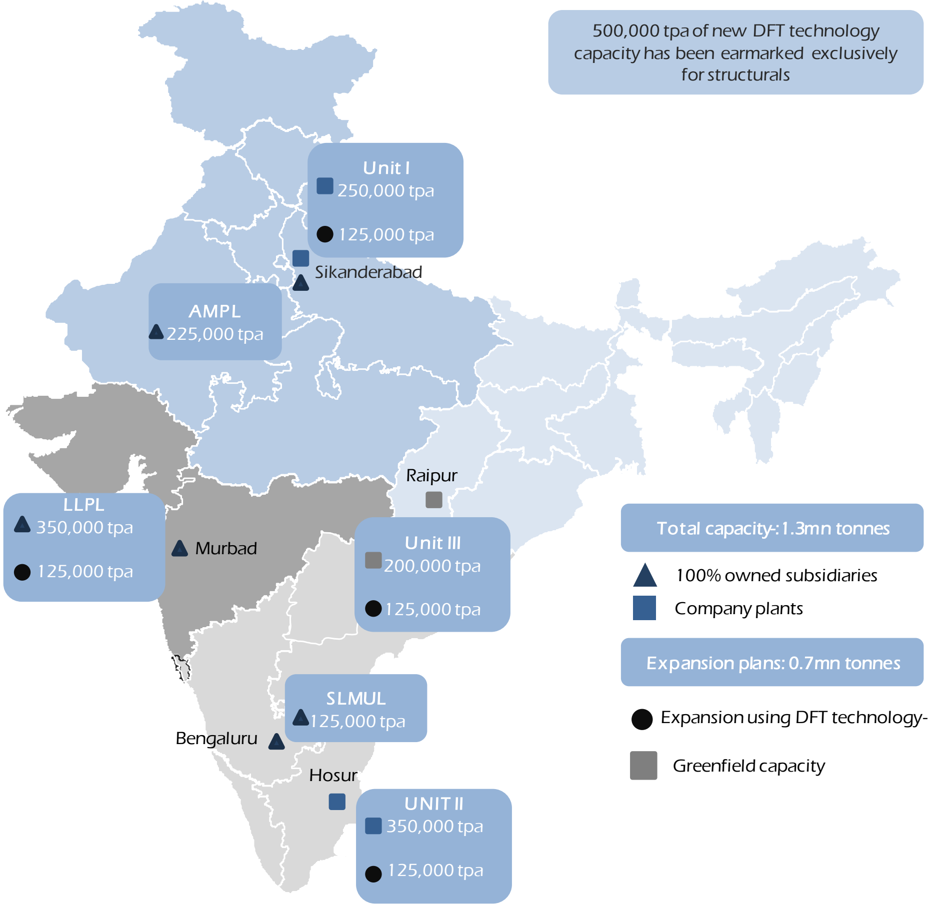
Going large

- Largest ERW pipe firm with capacity of 1.3mn tpa in FY16
- Expand capacity by ~54% to 2mn tonnes by Q1FY18
- Volume CAGR of 21% over FY16-19E

Largest ERW pipe manufacturer

APL Apollo Tubes is the largest ERW pipe manufacturer in India. It has been on an expansion spree in the last decade, through the organic and inorganic routes (acquired three companies in the past decade and turned around two). The company's pipe manufacturing facility has increased from 53,000 tpa in FY06 to 1.3mn tpa in FY16. It has a pan-India presence with five manufacturing plants across the northern, southern and western regions. APL Apollo is more than double the size of the second largest producer in India (Surya Roshi with total ERW pipe manufacturing capacity of ~600,000 tpa) and competes with the organized as well as unorganized producers. During FY16, it had a domestic market share of ~12%.

Exhibit 6: Expanding capacity from 1.3 mtpa to 2mtpa by Q1FY18



Capacity expansion details (000 tonnes)

	Plant	Location	FY11	FY16	FY17E	FY18E	FY19E
North	Unit 1	Sikanderabad	125	250	250	375	375
	Apollo Metalex	Sikanderabad	25	225	225	225	225
West	Lloyds Line pipes	Murbad	90	350	350	475	475
South	Unit 2	Hosur	200	350	350	475	475
	Sri Lakshmi Metal Udyog	Bengaluru	50	125	125	125	125
Central	Unit 3	Raipur	-	-	-	325	325
Total			**490**	**1,300**	**1,300**	**2,000**	**2,000**

Note: AMPL stands for Apollo Metalex, LLPL for Lloyds Line Pipe, and SMPL for Shri Laxmi Metal Pipe; Source: Company, Elara Securities Estimates

Key acquisitions and mergers

Apollo Metalex, Sikandarabad (Uttar Pradesh)

The company acquired Apollo Metalex (with a 24,000 tpa sheet galvanizing capacity) in 2007 with a view to backward integrate its operations in North India and obtain steady supply of pregalvanized sheets. The process of galvanizing sheets before conversion as against the traditional way of galvanizing tubes helps in reducing zinc consumption by almost one-third. **The company paid INR 12.1mn against book value (no premium was paid over it) to acquire a 100% stake in APL Metalex equity**. The acquisition was funded largely through internal accruals. It strengthened the company's position in the highly fragmented northern market and improved its competitiveness vs peers on account of captive supply and higher economies of scale.

Thereafter, the company set up a tube manufacturing mill along with this unit. Its current tube capacity is 225,00 tpa. With new product innovations, we expect similar growth to continue.

Shri Lakshmi Metal Udyog, Bengaluru (Karnataka)

In FY08, the company acquired Shri Lakshmi Metal Udyog at Bengaluru with an annual tube-making capacity of ~50,000 tpa. It was a non-cash share swap deal. The company allotted 17,98,333 equity shares of INR 10 each on preferential basis in consideration of acquiring a 100% equity of the company. The estimated deal value was INR 340mn. The main motive of the acquisition was to extend its reach in Southern India and to reduce logistics cost from North India. Prior to the acquisition, the unit was running at less than one-fifth of capacity and had bottlenecks in the manufacturing- and supply-chain process. APL has brought about a change in technology and revised its product mix to meet demand in South India. It shifted the units to Japanese technology to increase yield and improve efficiency, thereby saving on raw material cost too

Lloyd Line Pipe, Murbad (Maharashtra)

The company acquired Lloyd Line Pipe (LLPL) in November 2010. LLPL had an annual capacity of 90,000 tpa in Murbad, near Mumbai. The acquisition was mainly to earn synergies and increase the company's presence in Western India and in the export market. The company also got access to use the API certified pipe manufacturing facility of Lloyds. The offer also included customer franchise, product development capability and new markets. The company paid INR 400mn in cash to acquire the 100% stake in Lloyds India.

Capacity boost to 2mn tpa by Q1FY18

Management plans to raise the company's annual production capacity to 2mn tonnes by Q1FY18E. It is setting up a Greenfield capacity of 200,000 tpa (capex per tonne of INR 5,000) at Raipur in Chhattisgarh. It is expected to be commissioned by Q1FY18, which will cater to East and Central India, thereby saving on transportation cost. The eastern and central region currently has a potential of ~1mn tonnes. It is also enhancing production capacity at its plants by 500,000 tpa (including the new facility at Raipur) by setting up new DFT technology mills of 125,000 tpa in each region (capex per tonne of INR 3,000).

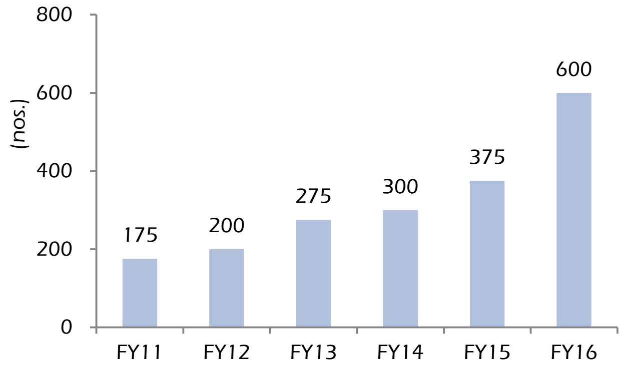
Capacity expansion 2.0 from FY19

After initial stabilization of phase 1 (i.e. setting up 0.7mn tpa), it may plan the second phase of expansion by setting up 0.2mn tpa capacity at Bangalore. This unit will manufacture precision tubes for automotive applications. It also has a vision to set up a 0.3mn tpa capacity in the Middle East to cater to the exports market. It will soon start focusing on export market which helps it to grow faster. We assume work on the Bangalore plant will start in FY19 but have not included any capex for its Middle East plant.

Wider reach, branding to boost sales

APL's wide geographical reach helps the company save on logistics cost as well as on lead time. As the industry is fragmented, firms compete in terms of prices and lower logistic cost, giving APL an edge over competitors. Proximity to the client base helps it ensure quicker delivery. The company has expanded its distribution network over time to newer cities and towns. It has a presence in about 300 cities and towns through its vast network of distributors and retailers. It has 26 warehouses and a network of 600 distributors & 40,000 retailers, which help the company to serve customers across the country.

Exhibit 7: Distributors double since FY14



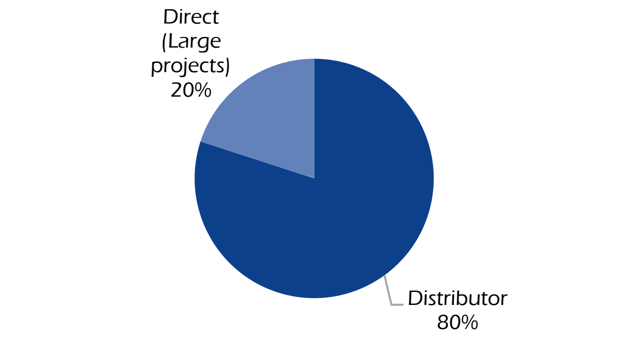
Source: Company sources

Pipes

Retail rules the roost

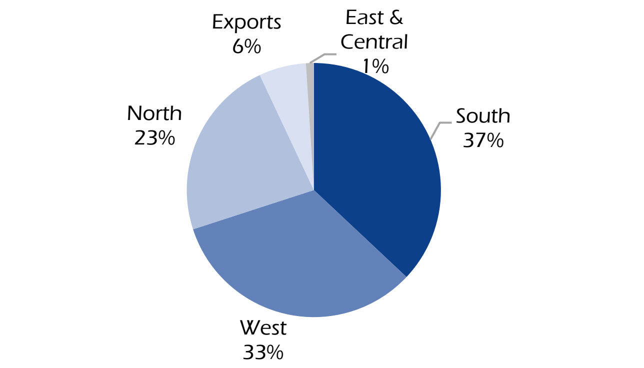
In FY16, 80% of revenue came from the retail sector through distributors, of which 30-35% was from the household sector, 30% from infrastructure and 20-25% from agricultural pipes & scaffolding. The rest was from direct sales to large institutional customers for large real estate and infra projects. Moreover, the company has undertaken several brand engagement programs, such as participating in trade expos, meeting fabricator needs and focusing on advertising to increase its presence in the market and improve its brand value. These efforts have resulted in better growth sales in tier I and tier II cities.

Exhibit 8: Retail sales drives company revenues



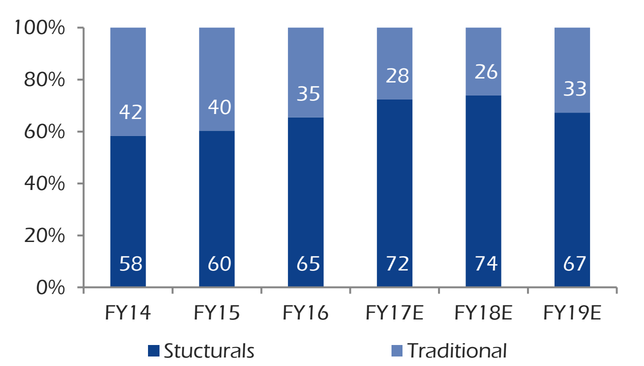
Note: 2015-16; Source: Company, Elara Securities Estimates

Exhibit 9: New capacity to help focus on East & central India for volume growth



Note: FY16 regional sales break down; Source: Company, Elara Securities Estimates

Exhibit 10: APL's focus on structurals drives volumes



Source: Company, Elara Securities Estimates

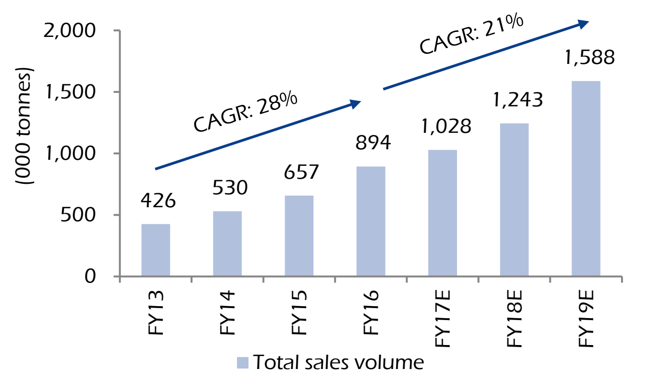
Automotives- the untapped market

ERW steel tubes can be used in automobile industry. Presently, the ERW industry lacks the technology to manufacture such products and hence the market is under penetrated. With the introduction of new DFT technology (capacity of 0.5mn tpa), APL can tap this market by producing new products which could be manufactured using higher precision and in required sizes. The OEM market currently has a potential of ~0.5mn tpa for steel tubes. APL plans to acquire ~60% market share in this segment in next three years.

Volume CAGR of 21% over FY16-19E

APL management has been aggressive in its expansion and marketing strategies. In addition, the shift from unorganized producers to organized ones has led to register a volume CAGR of 34% during FY06-16 to ~900k tonnes in FY16. With new capacity coming in at its Raipur plant, the company will be able to cater to the nearby markets in Central and East India. We expect APL to post a volume CAGR of ~21% during FY16-19E to 1.6mn tonnes in FY19E, given new and expanded capacity at existing units and its ongoing marketing efforts.

Exhibit 11: Increased demand, marketing efforts to drive growth in sales volume



Source: Company, Elara Securities Estimate

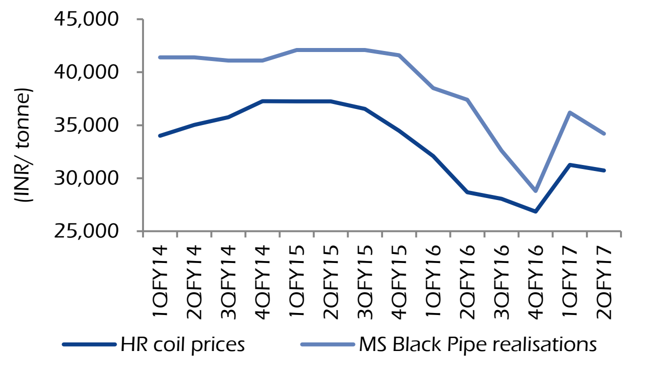
Running at full volume

- Largely conversion business, earnings driven by volume
- Wide product mix and new innovations boost sales volume
- New technology to improve efficiency and increase cost savings

Conversion biz volume boost earnings

A pipes business is essentially based on a conversion business model. Any increase or decrease in steel prices is passed on to consumers with a lag. The key raw material used in manufacturing ERW pipes is hot rolled coils (HRC). APL buys HRC from major steel manufacturers, such as JSW Steel (60-70%), Bhushan Steel (~20%) and balance by Tata Steel, SAIL and through imports. APL sources HRC from these companies as they are closer to its manufacturing units, and, in turn, this helps the company save on logistics cost. It also buys HRC at a competitive rate as it is one of the largest buyers of HRC in India.

Exhibit 12: A conversion model



Source: Company, Industry sources

Spoiled for choices on product mix

APL has one of the largest product portfolios in the ERW pipe segment. The company's products are sold to diverse industries; hence, demand, to some extent, is derisked from short-term economic challenges. APL manufactures products in various shapes: round tubes and hollow sections (available in variants such as MS Black, pregalvanized, galvanized, color-coated and API certified grades.

Shape of things matter

The company also caters to the oil & gas segment and has an API certification. This certification states these manufactured pipes are suitable for transporting oil & gas. The size of pipes ranges from 0.5 inch to 14 inches in outer diameter for round tubes, 12x12mm to 25x25mm in square sections and 26.5x13.5mm to 300x200mm in rectangular sections, 0.6mm to 10 mm in wall thickness and 3m to 12m in length.

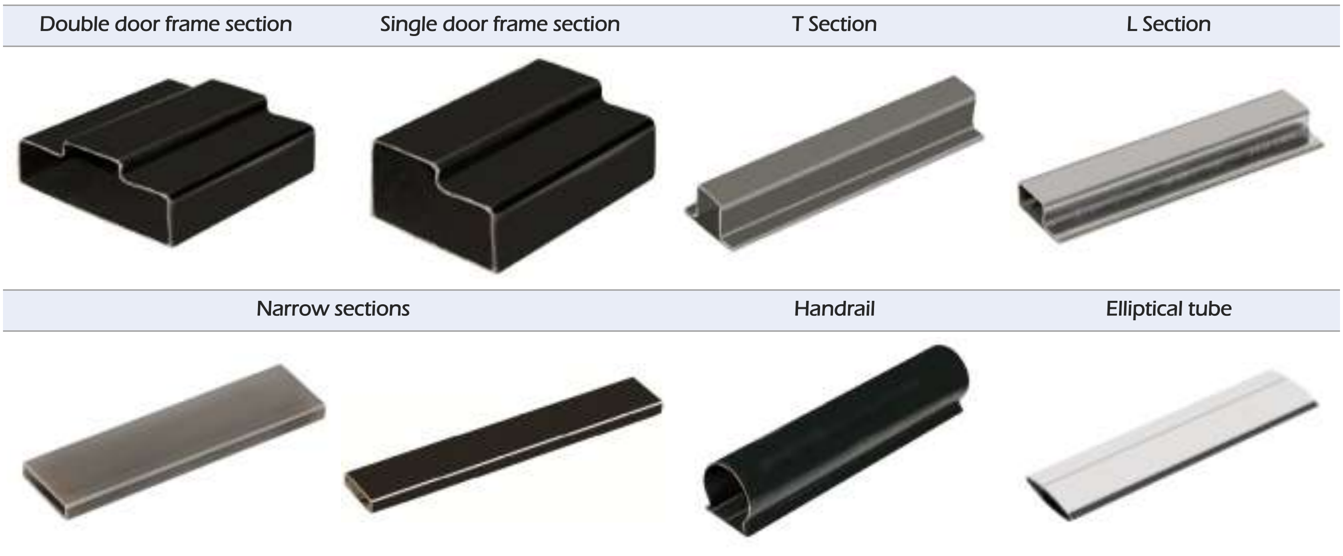
The company has introduced new products, such as prefabricated structural products like door frames, window frames, handrails, and small & narrow sections useful in the construction of low-cost houses and increasingly replacing traditionally used expensive materials, such as wood, concrete and aluminum. It has started manufacturing color-coated tubes, designer

Exhibit 13: Hollow sections products likely to make up ~50% of overall mix by FY19E

Product	Description
Hollow sections 	▪ Hollow sections are the fastest-growing industry in pipes and tubes. Possess high tensile capacity, compressive strength, rigidity & fire resistance. Also used for their aesthetic characteristics ▪ They are used as structurals, replacing previously used steel beams and open formations. Widely used in other segments, such as heavy & general engineering, transport and agricultural sectors
Pre-galvanized tubes 	▪ Made using pre-galvanized sheets. Several preventive coatings are applied either before or after tube production. Two plants even have a captive HR coil galvanizing facility where it directly makes pre-galvanized sheets from HR coils ▪ Tough, anti-corrosive, durable & light. Used in making fences, cabling, automotive (bus body) and green-house structures
Galvanized tubes 	▪ Galvanized tubes undergo the hot-dipped galvanized process. They are pre-manufactured steel tubes dipped in molten zinc providing corrosion resistance. Available in different sizes, ranging from 21mm to 273mm ▪ Varied applications such as piping systems, power, engineering and refineries
MS Black Tubes 	▪ Manufactured by coating it with oil or black lacquer base. Available in sizes ranging from 21 mm to 355 mm ▪ Owing to low maintenance, these tubes are used in boilers, power transmission and gas distribution system

Source: Company presentation and annual report

Exhibit 14: Among hollow sections, APL's high margin prefabricated products



Source: Company presentation- June 2016

tubes, dynamically balanced tubes. These dynamically balanced tubes are used in the engineering segment, such as idlers for conveyors, propeller shaft tubes, bobbin tubes for the textiles industry, and high-end applications wherein precision diameters are needed and other high rotational applications.

New technology advantage; conversion cost to reduce by ~10%; may earn premium too

APL has been a pioneer in setting up new capacity. It has adopted the latest technologies, such as setting up the galvanizing line, cold saws, high speed mills from Europe or the rotary sizing mills, which have helped it to manufacture high quality rolled tubes.

The company is setting up a new direct forming technology (DFT) which will add another 0.5mn tpa capacity. The total capex for eight new lines of DFT mills is INR1.5bn, according to the management. Thus, additional capacity is being created at a much lower capex of INR 3,000 per tonne.

It will help in material saving of ~3% as the new product will have sharper edges and material will not reside in corners as it happens with the traditional technology where the sections are converted from round tubes. The company will also be able to produce pipes in smaller batches and take customized orders with higher margin. This brings certain advantages: the line can produce even smaller order sizes of 10-20 tonnes unlike traditional technology wherein larger batches of 400-500 tonnes had to be run before any change could be done. Also the products will be made to precision, with sharper edges and no bulges at the end. It will also help in production of large size tubes (200mmx200mm or 300mmx300mm) which are required by various equipment or bus body manufacturers and are largely imported currently.

With the new technology and approvals of the OEM in place the company will also be able to cater to this segment which is still under penetrated and has high potential (market size of ~0.5mn tonnes). As the company is the first to introduce this technology in the country, it has made agreements with the supplier to not share the technology for the next 3 years, which will give it a monopoly in the initial years and help it to create a brand value for its product and earn a premium over it. The approvals however will take a year or half to fall in place. This will also help APL to cater to exports market.

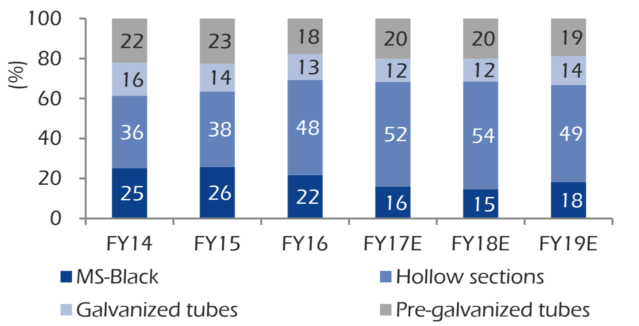
In the DFT technology, the company can form square- and rectangular-shaped tubes directly without forming the round cross sections.

Additionally, the company is also setting up an in-line galvanizing line (capex of INR500mn), which helps to galvanize tubes on a continued basis when they are being manufactured rather than dipping them post manufacturing in a zinc bath. This technology will help the company save on time as well as raw material cost.

Enriching product mix leads to higher margin

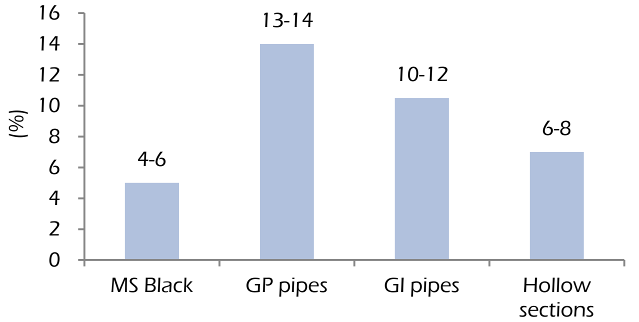
Besides driving cost efficiency, the company is on course to enrich its product mix. It earns 6-8% margins in hollow sections, 10-14% margin in its galvanized products and a 4-6% margin in its black pipes. It is on course to increase volume of galvanized pipes and hollow sections made from DFT. This in turn would improve product mix and lead to higher margin.

Exhibit 15: Hollow sections to continue to dominate product mix in FY19E



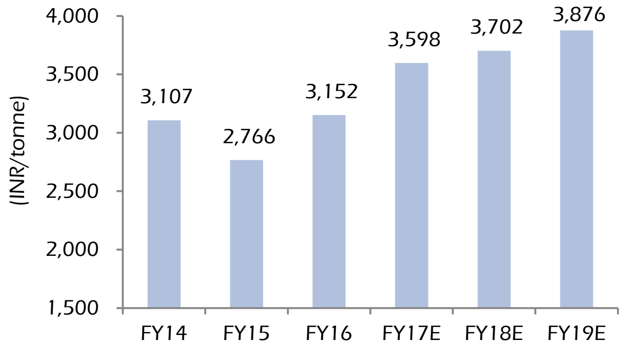
Source: Company, Elara Securities Estimates

Exhibit 16: Focus on high margin GP & GI products to increase



Note; 2015-16; Source: Company presentation- June 2016

Exhibit 17: EBITDA/tonne to rise with better product mix and cost efficiency



Source: Company, Elara Securities Estimates

Pipes

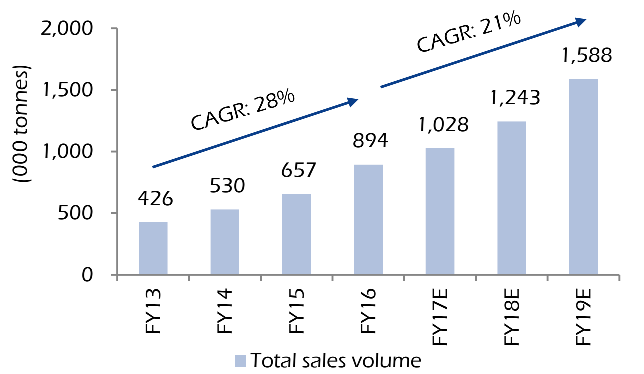
Watching it grow

- ❑ **Sales volume CAGR of ~21% over FY16-19E to 1.6mn tonnes...**
- ❑ **...leading to EBITDA CAGR of 30% over FY16-19E**
- ❑ **Strong balance sheet, improved return ratios leads to free cashflow generation**

Sales volume CAGR of 21% over FY16-19E...

APL has been on an expansion mode and recorded a sales volume CAGR of 28% during FY13-16 to 894k tonnes. We expect this to continue and deliver a sales volume CAGR of 21% during FY16-19E to 1.6mn tonnes, driven by industry growth as well as rise in market share.

Exhibit 18: Sales volume CAGR of 21% over FY16-19E

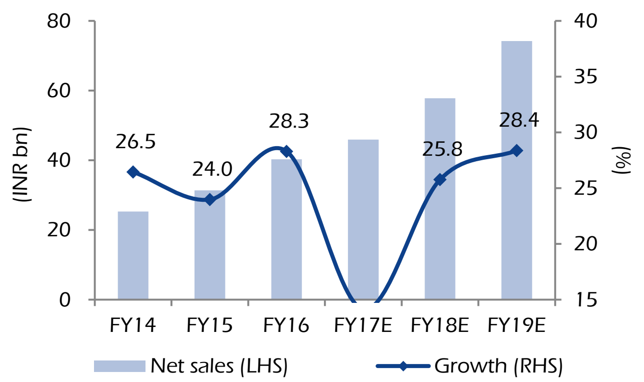


Source: Company, Elara Securities Estimates

...leading a net sales CAGR of 21% over FY16-19E

APL is into conversion business, and, hence, it usually passes on any increase or decrease in steel prices to its final customer. As a result, we believe the quality of top-line growth will be better if it is driven by volume. The company reported a net sales CAGR of 28% over FY13-16, driven by similar growth in volume. We expect this trend to continue and record a net sales CAGR of 21% over FY16-19E.

Exhibit 19: Higher sales volume to lift net sales

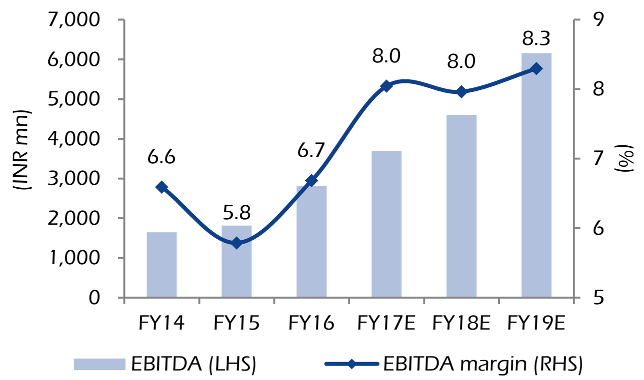


Source: Company, Elara Securities Estimates

Better product mix, higher volume to lift EBITDA

APL delivered an EBITDA CAGR of 21% during FY13-16 despite an adverse macro environment. This was primarily due to volume growth (a sales volume CAGR of 28% to 894k tonnes over FY13-16). We expect the volume growth uptrend to continue (sales volume CAGR of 21% to 1.6mn tonnes over FY16-19E). We further expect margin to expand, due to an improved cost structure and better product profile after DFT technology coming in. Thus, an improvement in margin and higher volume could lead to an EBITDA CAGR of 30% during FY16-19E to INR 6.2bn.

Exhibit 20: Margin to improve on better product mix, higher efficiency

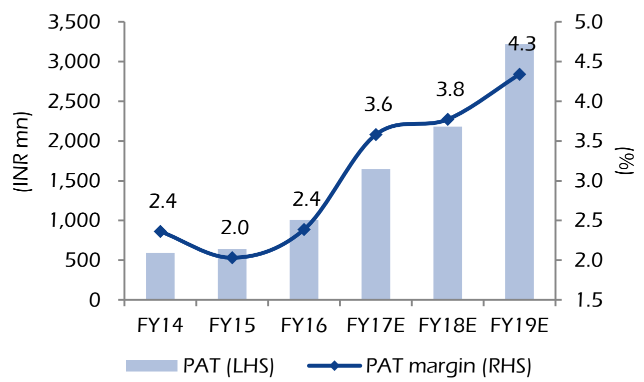


Source: Company, Elara Securities Estimates

Earnings CAGR of 47% over FY16-19E

APL recorded a profit CAGR of 14% during FY13-16 as a part of the operating profit was eaten away by higher depreciation and interest cost. As the company will be done with major capex by 1HFY18 and start generating free cashflow from FY17, we expect it to record a profit CAGR of 47% during FY16-19E to INR 3.2bn.

Exhibit 21: PAT margin to grow to 4.3% in FY19E with better operational performance

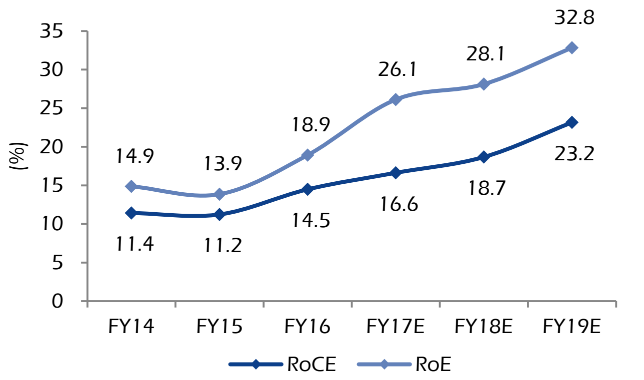


Source: Company, Elara Securities Estimates

Improving return ratios, led by better profitability

We expect ROE to improve to ~33% in FY19E from ~19% in FY16, driven by better operating profit (net margin to improve to 4.3% in FY19E from 2.4% in FY16) and a higher assets turnover ratio of 6.3x in FY19E from 6.0x in FY16.

Exhibit 22: Higher earnings to improve return ratios

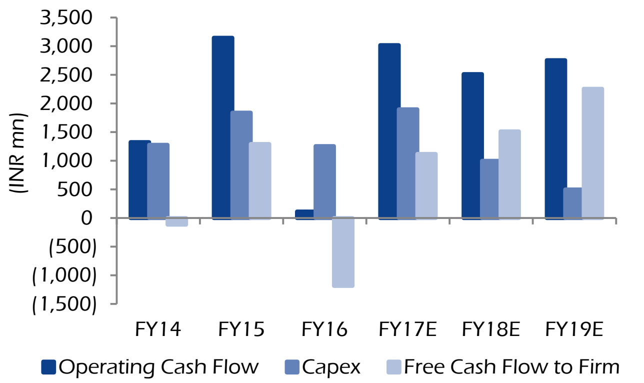


Source: Company, Elara Securities Estimates

Free cashflow from FY17; capex via internal accruals

We expect the company to generate positive free cash flow of INR 4.9bn over FY16-19E. Capex of ~INR 3.8bn will largely be internally funded, and, hence, it will have adequate cashflow to deleverage its balance sheet, provided any inorganic opportunities do not arise.

Exhibit 23: Free cash flows to increase with higher operating cash generation

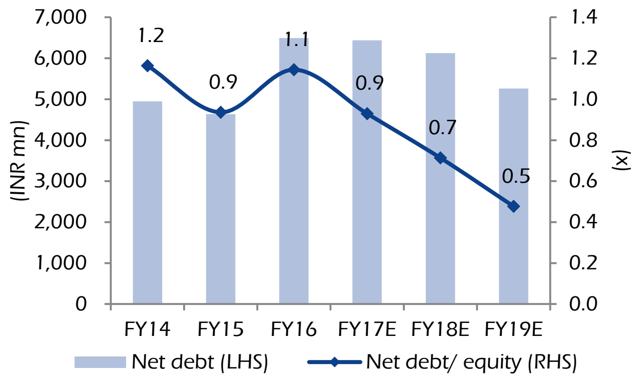


Source: Company, Elara Securities Estimates

Strong balance sheet; may deleverage further

APL has maintained strong balance sheet despite aggressive growth in capacity creation. Its net debt-equity ratio remains in the range of 0.9-1.2x for the past five years. With improvement in cashflow, it may further deleverage its balance sheet in the next three years. We expect the net debt-equity ratio to go down to 0.5x in FY19E from 1.1x in FY16. However, we do not rule out any acquisitions to boost growth, which may not reduce debt but provide for comfortable balance sheet.

Exhibit 24: Deleveraging to bring down gearing to 0.5x in FY19E



Source: Company, Elara Securities Estimates

Working capital days under 50 days

APL's aim is to consistently keep working capital days below 50. It has reduced debtor days significantly from ~40 days in FY14 to ~22 days in FY16, primarily due to an increase of retail sales. The focus on building own warehouses and an extensive dealer network helps in increasing cash sales, thereby reducing working capital requirements. During FY16, inventory days shot up as the company purchased raw material in advance, anticipating high steel prices post the MIP in February.

Exhibit 25: Working capital days movement

	FY14	FY15	FY16	FY17E	FY18E	FY19E
Debtor days	40	23	22	20	20	20
Inventory days	47	41	59	40	40	40
Creditors days	20	26	25	15	15	15
Working capital days	**67**	**38**	**56**	**45**	**45**	**45**

Source: Company, Elara Securities Estimates

Exhibit 26: No further equity dilution in sight

Equity paid-up capital (INR mn)	Opening balance	Additions/Deletions		Closing balance
FY07	31	Call in arrears received	1	32
FY08	32	**Apr 7**- Issue of bonus (1:1)	32	
		May 7- Allotment of 3.18 mn warrants for a period of 18 months at INR 130/ share	-	
		Jan 8- Issue of 4.28mn shares against conversion of 2.14mn warrants and 1:1 bonus on it	43	107
FY09	107	**Apr 8**- Issue of 1.8mn shares for acquisition of 100% stake in SLMUL	18	
		Apr 8- Issue of 0.78mn shares against conversion of 0.39mn warrants and 1:1 bonus on it	8	
		Jun 8- Allotment of 2.94mn shares as underlying securities for 1.47mn GDR	29	
		Jun 8- Issue of 0.78mn shares against conversion of 0.39mn warrants and 1:1 bonus on it	8	
		Jun 8- Allotment of 2.94mn shares as underlying securities for 1.47mn GDR	29	
		Jan 8- Issue of 0.37mn shares against conversion of 0.18mn warrants and 1:1 bonus on it	4	
		Mar 8- Forfeiture of 65,000 warrants issued in May 7	-	203
FY10	203	No change	-	203
FY11	203	**Dec10**- Allotment of 1.64mn warrants convertible until Jun 12 at INR 176/share	-	203
FY12	203	**Feb 12**-Allottment of 1.5mn warrants convertible until Aug 13 at INR 145/share	-	
		Mar 12- Issue of 1.0mn shares against conversion of 1.0mn warrants issued in Dec 10	10	213
FY13	213	**Jun 12**- Issue of 0.64mn shares against conversion of 0.64mn warrants issued in Dec 10	6	
		Mar 13- Issue of 0.39mn shares against conversion of 0.39mn warrants issued in Feb 12	4	223
FY14	223	**Aug 13**- Issue of 1.12mn shares against conversion of 1.12mn warrants issued in Feb 12	11	234
FY15	234	No change	-	234
FY16	234	No change	-	234

Source: Company, Elara Securities Research; Note: Face value=INR10

Exhibit 27: Quarterly financials-EBITDA margin on a rise

(INR mn)	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16	3QFY16	4QFY16	1QFY17	2QFY17
Volumes (000 tns)	124	136	159	167	162	168	212	213	206	263	239	235
Net sales	6,291	6,557	7,424	7,535	7,577	7,823	9,984	10,565	9,462	11,805	11,275	9,555
EBITDA	391	413	491	492	501	347	563	690	706	855	899	822
EBITDA margin (%)	6.2	6.3	6.6	6.5	6.6	4.4	5.6	6.5	7.5	7.2	8.0	8.6
Interest	154	160	159	167	166	173	161	168	184	182	183	160
Depreciation	43	39	46	48	67	60	73	77	82	110	102	168
PBT	195	222	297	283	274	122	330	306	467	528	630	514
Tax rate	34	36	33	32	35	45	34	34	33	48	34	35
PAT	129	143	199	193	178	67	228	307	312	315	414	337
PAT margin (%)	2.0	2.2	2.7	2.6	2.3	0.9	2.3	2.9	3.3	2.7	3.7	3.5

Source: Company; Elara Securities Research

Exhibit 28: Key assumptions

	FY14	FY15	FY16	FY17E	FY18E	FY19E
Sales volume (000 tonnes)						
MS Black	134	170	194	165	181	290
Hollow sections	191	248	426	536	670	771
Galvanized tubes	87	91	115	119	143	229
Pregalvanized tubes	118	148	159	207	249	299
Others	47	46	64	58	58	58
Realization per tonne (INR)						
MS Black	41,100	40,300	33,776	37,153	39,382	40,170
Hollow sections	41,800	41,000	34,651	38,116	40,403	41,211
Galvanized tubes	50,700	49,800	42,194	46,414	49,199	50,183
Pre-galvanized tubes	50,900	49,400	42,027	46,229	49,003	49,983
Others	31,200	26,500	20,262	22,288	23,625	24,098
EBITDA per tonne (INR)	**3,107**	**2,766**	**3,152**	**3,598**	**3,702**	**3,876**

Source: Company, Elara Securities Estimates

Rerating candidate

- Initiate with a Buy rating and a TP of INR1,596 on 7.0x FY19E EV/EBITDA
- EBITDA CAGR of 30% over FY16-19E
- Superior return ratios in excess of 30%; free cash flow yield of 10% in FY19

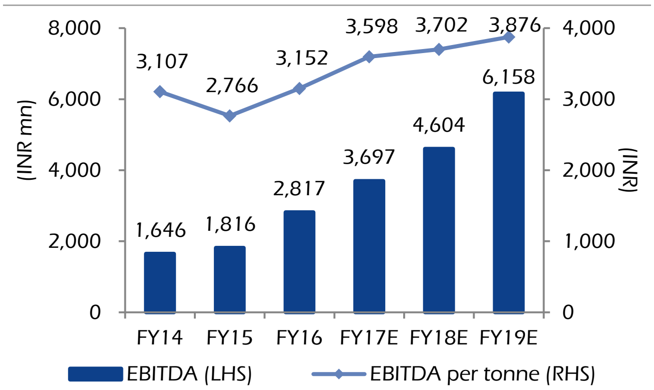
Initiate with Buy and a TP of INR 1,596

We initiate coverage of APL Apollo Tubes with a **Buy** rating and a price target of INR1,596 based on 7.0x FY19E EV/EBITDA. Historically, on a five-year average, it trades at an average one-year forward EV/EBITDA of 5.2x but valuation multiple keeps on rising (one year average was 6.2x). With increase in size and continued growth in profit coupled with superior return ratios, we believe the stock commands a premium valuation vs its historical trading band. Also, it will be very difficult for any pipe manufacturer to match its capacity and distribution network which will keep APL's earnings to grow. Moreover, at a CMP of INR 925, the stock is available at a free cashflow yield of 10% on FY19 basis.

Operating earnings boost on higher volume

The company is set to post an EBITDA CAGR of 30% over FY16-19E on the back of higher volume amid improved demand for pipes. We believe APL Apollo Tubes will continue to win market share from unorganized companies, and, thus, maintain volume growth of >20% over the next three years.

Exhibit 29: Better product mix, efficiencies to improve operating profitability



Source: Company, Elara Securities Estimate

Improving return ratios due to margin improvement

We expect the company's margin profile to improve significantly with an increase in operating margin from 6.7% in FY16 to 8.3% in FY19E as well lower interest cost (Interest/PBIT is likely to fall from 27% in FY16 to ~12% in FY19E), which will help to record a higher net margin, up from 2.4% in FY16. We believe this will improve return ratios significantly. We expect ROE to increase to 33% in FY19E from 19% in FY16 and ROCE to rise to 23% in FY19E from 14.5% in FY16.

Exhibit 30: DuPont analysis

	FY14	FY15	FY16	FY17E	FY18E	FY19E
PAT/PBT (%)	66.3	65.3	61.7	66.0	66.0	66.0
PBT/EBIT (%)	59.3	59.5	63.2	77.3	82.9	88.5
EBIT/Sales (%)	6.0	5.2	6.1	7.0	6.9	7.4
Sales/Assets (x)	4.9	5.2	6.0	5.6	6.0	6.3
Assets/Equity (x)	1.3	1.3	1.3	1.3	1.2	1.2
ROE (%)	15.0	13.9	18.9	26.1	28.1	32.8

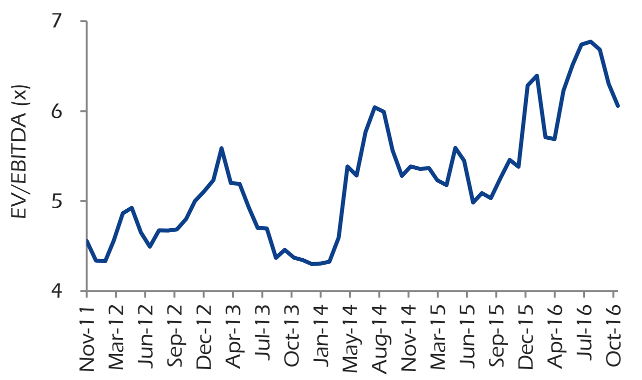
Source: Company, Elara Securities Estimate

Exhibit 31: Valuation

(INR mn)	FY19E
EBITDA	6,158
EV/EBITDA (x)	7.0
EV	43,103
Average net debt	5,693
Market cap	37,409
No.of shares (mn)	23
TP (INR)	**1,596**
CMP (INR)	925
Upside (%)	73

Note: pricing as on 4 November 2016; Source: Elara Securities Estimate

Exhibit 32: Rerating based on strong growth in earnings



Source: Company, Bloomberg, Elara Securities Research

Investment risks

Higher working capital may stretch earnings

Since APL started focusing on retail sales (80% of overall sales), debtor days declined from ~50 days in FY11 to 22 days in FY16. As the industry is working capital-intensive, the company has to hold raw material inventory for 35-40 days. While it has to give a credit period of ~20 days to customers, creditor days are only 10-15 days, indicating a stretch in the working capital cycle. Any sharp rise in inventory or debtor days could increase working capital requirements and stretch earnings.

Sharp rise in steel prices may lead to lower margin

Raw material is a major cost for the company, accounting for 83-85% of overall revenue. APL's key raw material is HR coils or strips, which are used to manufacture pipes and tubes. Although the company is a convertor, any sharp fluctuations in steel prices directly may impact profitability. Given the fragmented nature of the industry, APL is often unable to pass on the entire cost hike to consumers, as it is price sensitive. Also, there can be a decline in sales volume as consumers might defer purchases during price hikes. For eg , APL was unable to pass on steel price hikes fully to consumers during the later part of FY14, which resulted in margin compression to 6.6% in FY14 and 5.8% in FY15. Also, a sudden fall in steel prices may lead to inventory loss. It recorded an inventory loss of INR 450mn in FY15 and INR 427mn in FY16, due to a fall in steel prices.

Not much of an entry barrier but not a worry for APL

As the business is not technology-intensive, and given high asset turnover nature of the business, it is easy for a new firm to enter the market, especially if it is willing to offer liberal credit terms. However, over the past few years, we have seen a consolidation in the industry, with smaller companies losing market share. Branding has started to play an important role in sales growth. The scale also allows larger companies to procure cheaper raw materials and improve conversion efficiency, allowing them to compete easily.

Threat of substitution may impact volume growth

Offlate, the company has been exposed to increased competition from plastic PVC pipes. Given their light weight, low pressure-handling capacity and low cost, these pipes are substituting traditionally used GI pipes in the agriculture industry (especially in plumbing & irrigation). GI pipes have one of the highest margin products and threat of substitution in this segment can impact overall profitability.

Rise in transportation cost may affect margin

The pipes & tubes business is more of a regional play as it is freight-intensive. Transportation cost accounts for about 7-8% of overall cost. Freight cost is directly affected by fluctuations in diesel prices. Deregulation of diesel prices and reduction in subsidy has causes prices to rise over the last two years, thereby adversely affecting transportation cost. APL, hence, in an attempt to control transportation cost, has set up manufacturing units across the country and closer to steel manufacturing units for a steady supply of raw material as well as speedy supply to consumers. It currently has units in southern, northern and western regions. To cater to demand in Central and East India, it is setting up a new plant at Raipur, which is expected to be commissioned by Q1FY18.

Project delays may hamper volume growth

About 70% of APL's sales volume is from the structural segment, which is used in construction activities and building modern infrastructure, such as airports, malls and ports. Sales in this segment are highly dependent on the investment cycle and the upcoming projects. Any delay in project execution or slowdown in investments can have a direct bearing on overall sales. The company hence has been releasing new products, which can replace structures that are traditionally made from wood.

Annexure

Exhibit 33: Structure of India's steel pipe industry

India's steel pipe industry

Pipe type	Seamless pipes	LSAW pipes	HSAW pipes	ERW pipes
Raw material used	Billets	HR plates	HR coils	HR coils
Applications	Oil & Gas, engineering, automotive and power	Oil & Gas and water transportation (high pressure applications)	Water transportation, construction	**Traditional:** auto, power, city gas distribution, WSS, engineering **New age:** modern infra such as metros, malls, airports, irrigation structures, prefabricated structures

Source: Company, Elara Securities Research

Four types of pipes currently in use

There are four types of steel pipes that are currently being used, depending on strength, pressure-holding capacity and manufacturing processes. They are:

- **Seamless pipes:** As the name suggests, the pipe is manufactured without a seam or any welding. It has the highest pressure-handling capacity, able to withstand higher temperatures and have stress resistance. They are primarily used in oil & gas exploration and production.
- **Longitudinal submerged arc welded (LSAW) pipes:** These pipes are manufactured using hot rolled (HR) plates and welded on both sides, which increases its pressure-handling ability compared to HSAW pipes. Given strength and toughness, these pipes are largely used in long-distance transport of oil & gas
- **Helical submerged arc welded (HSAW) pipes**: These spirally, one-sided welded pipes are manufactured using HR coils. They are generally used to transport water & sewage and in the construction segment.
- **Electrical resistance welded (ERW) pipes:** These pipes are welded on the straight seam using high-frequency welding process. They have the lowest pressure-holding capacity. Recently, they have found applications in the form of structurals in the construction and modern infrastructure segments.

APL leader in ERW pipes segment domestically

APL Apollo Tubes is present only in the ERW pipe segment. The size of overall domestic ERW pipe market was estimated to be ~7.5mn tonnes in FY16. The industry is expected to post a CAGR of ~9% over FY16-19E.

In the past, the ERW pipes have been primarily used in water supply and sanitation segment and CGD transportation. Offlate, they have found application in newer segments such as structurals (construction and infrastructure segments). They are also used to manufacture pre-fabricated structures and in the automotive segment.

Currently, 55% of the ERW pipe market is estimated to be in the structurals segment. The ERW pipe segment is highly fragmented, with unorganized companies accounting for 45-50% of market share. Given the freight-intensive nature of the industry, this segment is largely a regional play with firms mostly catering to demand in nearby regions.

Presently, the industy is more fragmented in the western and the northern regions with companies facing increased competition in these areas. Given this, APL Apollo Tubes faces intense competition in this space. However, to offset this risk, the company has five manufacturing facilties across the country and is more focused on the structural segment, which has fewer competitors.

Exhibit 34 Prevailing competition in the ERW pipe industry

Balanced		Balanced	
North: ~1,390		West: ~1,370	
APL Apollo Tubes	*475*	APL Apollo Tubes	*350*
Jindal Industries	*300*	Bhushan Steel Ltd	300
Jindal Pipe (D.P.Jindal group)	*200*	Surya Roshni	*250*
Surya Roshni	*200*	Welspun Corp	200
Swastik Pipes	*100*	Maharashtra Seamless	200
Hitech	*50*	Rama Steel	*72*
Goodluck	40		
Rama Steel	*24*		

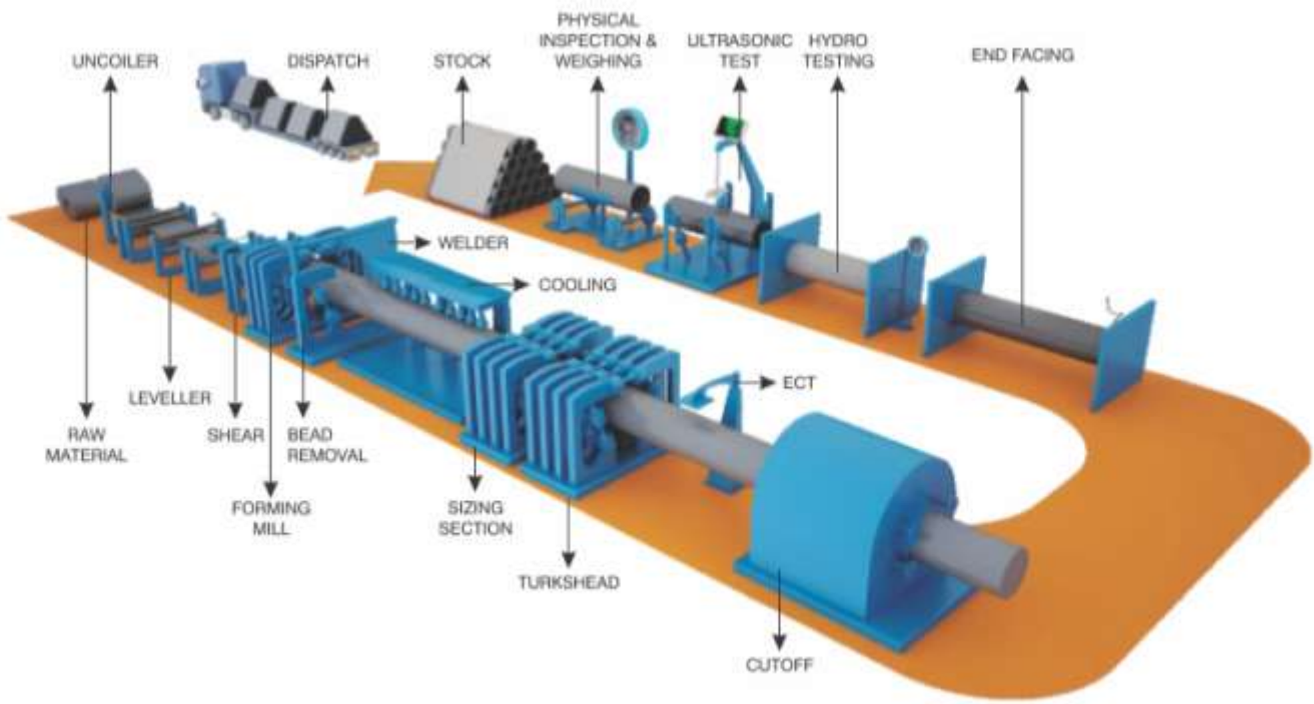
Deficit		Surplus	
South: ~575		East: 700	
Jindal Pipes (D.P.Jindal Group)	*100*	Tata Steel Ltd	400
APL Apollo Tubes	*475*	Jindal India (B.C. Jindal group)	300

Note: 2015-16 Source: Industry

HFIW manufacturing process

APL Apollo Tubes manufactures products using the high frequency induction welding (HFIW) process using HR coils or strips. The coils are slit into strips of desired sizes and then pass through the tube-forming sections where a conventional 'U' shape is given. The strip then passes to the final forming section & welded and excess slag (generally known as weld bead) is removed. After this process is complete, the pipes are cooled off and then cut as per size requirement.

Exhibit 35: Manufacturing process



Source: Company, Elara Securities Research

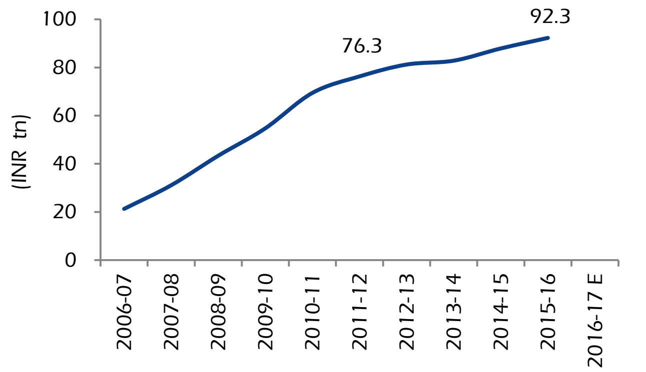
Pipes

Thrust on end-user segments

Growth in construction segment to boost demand

Steel pipes have lately found applications in real estate, construction, telecom, power, energy, entertainment zones, metros, airports and ports. They are used in the building, construction & infrastructure segments and have a variety of applications, such as conduits, support structures, fencing, railings and scaffolding. Delay in project awards, clearances and poor company financials slowed investments in the construction segment over the past couple of years. With the government's renewed focus on the infrastructure segment aided by a slew of policy reforms, we expect investments and construction in the infrastructure segment to gather pace.

Exhibit 36: Investment cycle shows an uptrend



Source: CMIE

Exhibit 37: Sector-wise projects under implementation and planning (INR bn)

Airport infrastructure	**305.88**
Planning	293.23
Under execution	12.65
Commercial complexes	**6.69**
Planning	6.69
Under execution	-
Gas pipeline	**136.40**
Planning	7.00
Under execution	129.40
Irrigation	**166.54**
Planning	5.69
Under execution	160.85
Ports	**195.00**
Planning	135.00
Under execution	60.00
Power distribution	**270.30**
Planning	156.70
Under execution	113.60
Railways	**3,145.27**
Planning	1,0,2.11
Under execution	2,073.16
Roadways	**2,446.74**
Planning	1,481.25
Under execution	965.49
Water & sewerage pipeline & distribution	**55.43**
Planning	31.89
Under execution	23.54

Source: Projects Today

Roads, railways, urban infrastructure and irrigation sectors are expected to drive growth. Rise in construction activities will boost demand for steel pipes (especially the new structurals tubes). Some key government initiatives are expected to drive investments. They are as follows:

Metro rails: demand for new wagons

Increasing urbanization and an inability to widen roads demands higher investments in alternative modes of transport, such as metros. With the success of the Delhi Metro, India has planned to invest USD 30bn over the next five years into metro projects. Demand for new wagons for these projects will boost demand for steel pipes.

Exhibit 38: New metro projects

Project	Length (km)	Estimated cost (INR bn)
Mumbai Metro line 2	40	256
Mumbai Metro line 3	33	231
Mumbai Metro line 4	40	191
Lucknow Metro	34	125
Jaipur metro phase 2	23	66
Bangalore metro phase 2	72	264
Chennai Metro phase 2	76	360
Ahmedabad- Gandhinagar	38	107
Bhopal Metro	39	80
Indore metro	107	150
Nagpur metro	38	87
Patna metro	60	115
Vizag Metro	45	na

Source: Industry sources

Smart Cities to support steel pipe demand

The Smart City Mission was launched in June 2015 and plans to cover 100 cities under this program within five years at an estimated cost of INR 480bn. Within a year of its launch, 33 cities have already been selected in the first phase, Although we do not expect work to be completed within the stipulated time, there has been good headway and investments to drive construction activities (as most proposals indicate projects are construction-intensive), which likely will support demand for steel pipes, especially in the structurals segment. 17 out of 33 cities have already formed their special purpose vehicles (SPV) and a few also have floated tenders for some projects.

Exhibit 39: Smart Cities

MISSION	To drive economic growth and improve quality of life by enabling local area development and harnessing technology
CORE INFRA ELEMENTS	▪ Adequate water supply ▪ Assured electricity supply ▪ Sanitation, including waste mgt ▪ Efficient public transport ▪ Affordable housing ▪ IT connectivity & digitalization ▪ Good governance ▪ Sustainable environment ▪ Health & education
STRATEGY	▪ Area-based development includes city improvement, renewal and extension ▪ Pan-city development envisages the use of technology to make infrastructure and services better

Source: Company, Elara Securities Research

Housing for All: booster for steel pipe demand

The Pradhan Mantri Awas Yojna (Urban) programme launched by the Ministry of Housing and Urban Poverty Alleviation in June 2015 envisions providing affordable housing for urban poor. With an aim to construct 20mn houses, this program also augurs well for steel pipes, which are used as structurals.

Exhibit 40: Housing for all by 2022

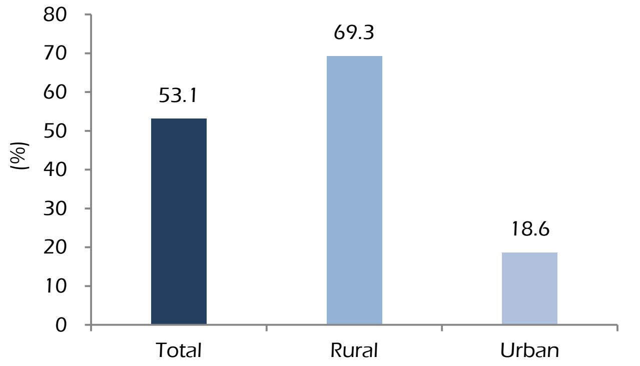
KEY BENEFICIARIES	Key beneficiaries include economically weaker section (EWS) and lower income group (LIG). The family should not own a pucca house either in his or her name or in the name of any member of his or her family
VERTICALS	▪ "In-situ" slum redevelopment providing house for slum dwellers ▪ Affordable housing through credit-linked subsidy, providing interest subvention for new house or incremental housing ▪ Affordable housing in partnership to provide financial assistance for houses being built ▪ Subsidy for beneficiary-led individual house construction, assistance to individual eligible families to construct a new house or enhance existing houses

Source: Company, Elara Securities Research

Water supply, sanitation segment to drive demand

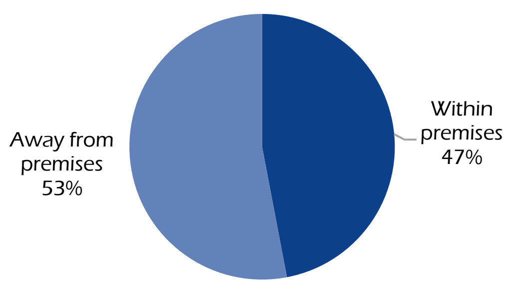
Steel pipes are essentially used to build infrastructure, which is needed to fulfill water supply and sanitation requirements of a growing population. There is a dearth of facilities providing drinking water and sanitation services, and India lags globally in terms of infrastructure. According to 2011 India Census, 53% of households lack sanitation facilities. Few cities in the country have access to continued water supply and a large number of households still do not have access to drinking water within the premises.

Exhibit 41: 53% of households having no sanitation facilities



Source: India Census 2011

Exhibit 42: Breakdown of water supply to households



Source: India Census 2011

As a result, the government has taken several steps to implement schemes to build robust infrastructure to meet water supply and sanitation needs, which, in turn, is expected to boost demand for steel pipes. Some key initiatives are as follows:

AMRUT scheme

Initiated in June 2015, the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme focuses on creating adequate infrastructure for water & sewage supply and transportation. Its target is to ensure tap water supply and sewerage facilities for everyone. Steel pipes are an integral part of the water & sewage transport system and this augurs well for steel pipe demand.

Exhibit 43: AMRUT

MISSION	To create infrastructure to provide basic services and build amenities to ensure robust sewage network & water supply
THRUST AREAS	▪ Water supply ▪ Sewage facilities ▪ Seepage management ▪ Storm water drains ▪ Public transport facilities
COVERAGE	500 cities with population greater than 100,000

Source: Elara Securities Research

NRDWP

The National Rural Drinking Water Programme (NRDWP) scheme was initiated to provide safe drinking water in all rural habitations. The main focus areas include conjunctive use of surface & ground water, water conservation, rain water harvesting and recharging of drinking water resources. Its implementation will drive demand for pipes.

Exhibit 44: NRDWP

MISSION	To provide adequate and safe drinking water to the rural population on a sustainable basis
OBJECTIVES	▪ Provide 40 liters per capita per day of safe drinking water ▪ 30 liters per capital per day for cattle in desert development program area ▪ Water should exist within habitation ▪ One hand pump or stand post for every 250 people

Source: Elara Securities Research

Higher investment towards irrigation segment

Steel pipes and tubes also are used to build sprinklers, drill rods, bore wells, and water distribution submersible pumps. The agriculture sector plays a vital role in India's economy and is highly dependent on the Monsoon. Its uncertainty and increasing demand for water amid scanty rainfall and falling groundwater levels have necessitated higher investments in irrigation. The government is trying to maximize the reach of irrigation by undertaking schemes such as the Pradhan Mantri Krishee Sinchayee Yojna. Irrigation spends are likely to grow at a healthy pace over the next few years with states such as Telangana, Maharashtra, Gujarat and Karnataka leading in terms of investments. Rise in need for irrigation and increasing spend will drive demand for steel pipes as well.

CGD use to drive demand for transportation pipes

The government is focusing to increase penetration of city-gas distribution (CGD) in the country. As a result, various entities have entered the market to establish the CGD network in different locations and in under-penetrated urban areas. Also, Petroleum and Natural Gas Regulatory Board is planning to expand the CGD network to more than 300 areas over the next few years. Pipes are the most convenient way to transport gas, and increasing investment in the CGD segment to expand network will in turn create demand for steel pipes.

Company Description

APL Apollo Tubes, the largest manufacturer of ERW pipes & tubes with an installed capacity of 1.3mn tpa, is the fastest-growing ERW pipe company in India. It is primarily focused on structurals which consist of ~70% of its volume. It has a pan-India presence, which is in proximity to raw material sources and major consumption markets. It is set to expand capacity further by ~54% to 2mn tpa, expected by Q1FY18E. This would lead to a sales volume CAGR of 21% and an EBITDA CAGR of 30% over FY16-19E.

Board of Directors & Management

Sanjay Gupta, Executive Chairman

Sanjay Gupta has been Executive Chairman since April 1, 2012. He has experience of over 2 decades in various steel industry segments. Under his leadership, the company continues to grow, gaining national and international recognition

Ashok K Gupta, Managing Director

Ashok Gupta has three decades of experience in the steel industry and worked with major companies, such as SAIL, Bhushan Steel, LN Mittal Group and Jindal. He joined the company in 2011 and was appointed MD in February 2012. He has a master's in Physic, a post-graduate diploma in business administration from AIMA. Gupta has won several awards and accolades over the years and has been instrumental in turning around the company.

Vinay Gupta, Director

Vinay Gupta has over 16 years of experience in exports and international market. He possesses indepth knowledge of manufacturing and trading pipes, tubes, sheets and other products. He has been specifically assigned with the development of the company's pre galvanized business and international markets.

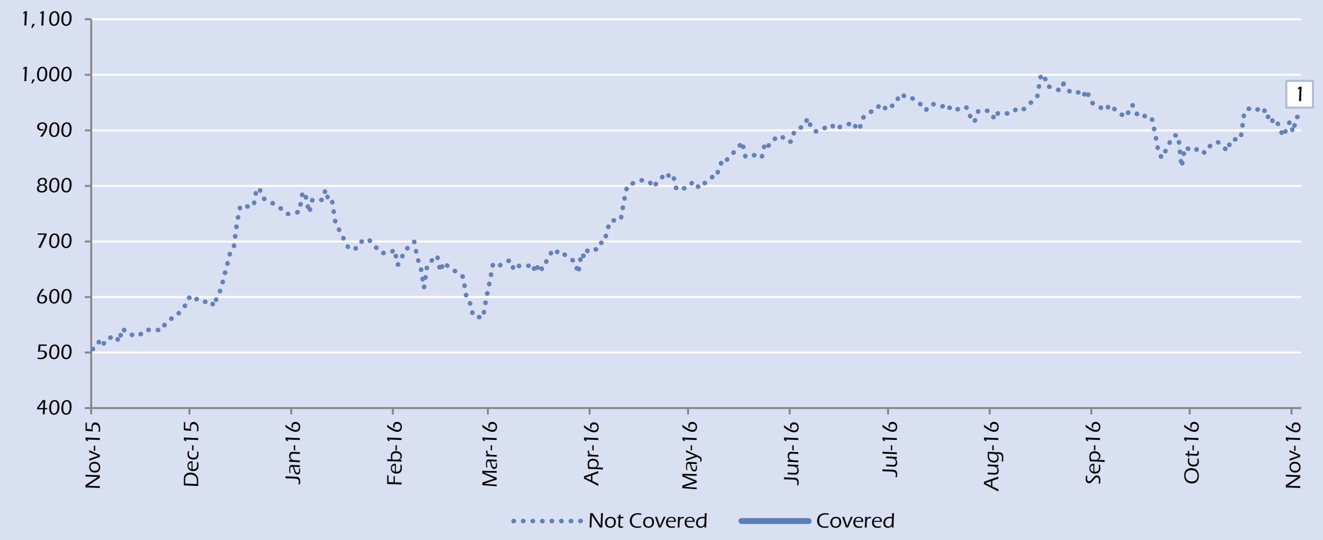
Romi Sehgal, CEO

Romi Sehgal has 35 years of experience in the steel and tubes industry. He has been associated with the company since 2008 and has experience in designing & manufacturing of steel tubes as well as executing completion of new Greenfield projects and enduring optimum production from the mills. Gupta was appointed as the director in August 2016.

Sharad Mahendra, Director, Sales & Marketing

Sharad Mahendra is an engineering graduate with more than 27 years of experience in automobiles, steel & chemicals industry. He joined the company on 27 September 2016. Mr Mahendra started his career with Yamaha Motors in sales & marketing and has been associated in the senior management team of companies, such as JSW Steel and Phillips Carbon Black-RPSG Group (Chemicals division). He is an expert in B2B & B2C marketing with insights of rural marketing.

Coverage History



	Date	Rating	Target Price	Closing Price
1	4-Nov-16	Buy	INR 1,596	INR 925

Guide to Research Rating

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