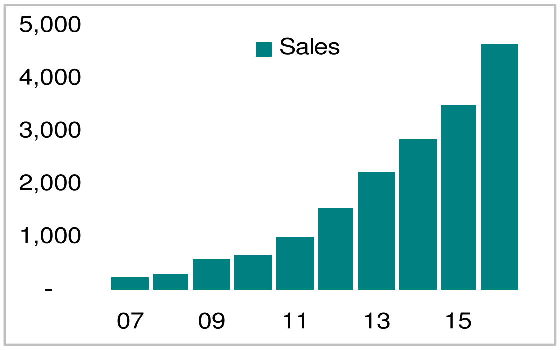
APL Apollo Tubes Ltd

Last Updated – **Sept 2016**

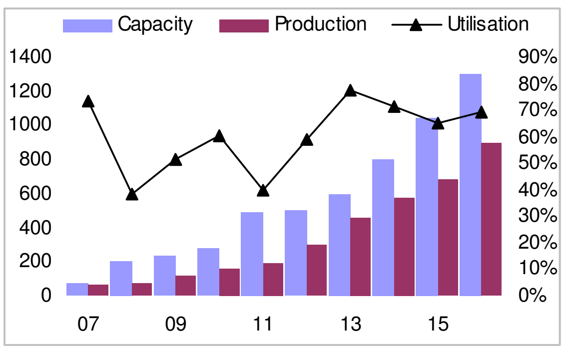
Summary - APL Apollo Tubes Ltd (Formerly Bihar Tubes Ltd) is in the business of ERW mild steel pipes and tubes in black, galvanized and hollow section categories.

Revenue

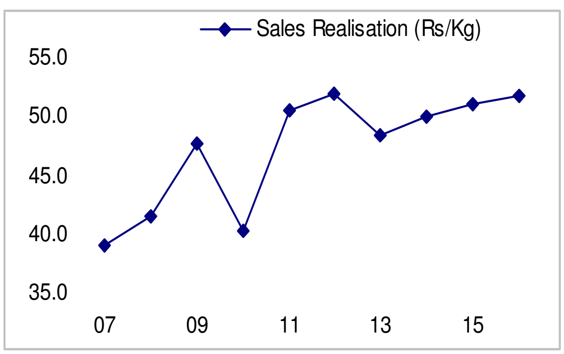
Company's revenue has grown at a CAGR of 23% over the last 3 years and 38% over last 10 years



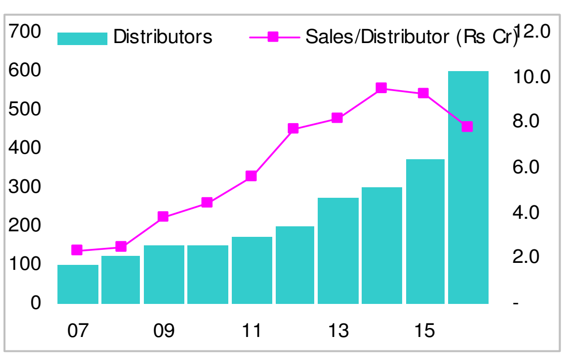
Driven by rising capacities (partly through acquisitions)



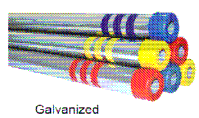
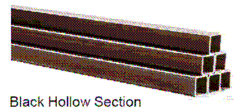
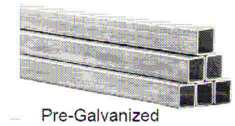
and rising sales realization,



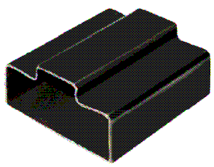
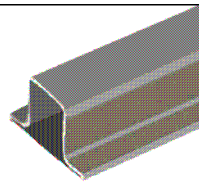
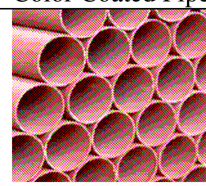
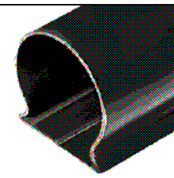
supported by growing distribution network built by the company.



Existing Products

	Black Round	Galvanized	Black Hollow Section	Pre Galvanized
Product				
Uses	Construction, Water & Sewage treatment, Automobiles	Over and underground piping, Agriculture, General Engineering	Fencing, Cabling and Ducting, Green house structures, Electric Conduit Pipes	Construction, Transportation systems, Mining, Process Engineering
Revenue Share	25%	16%	35%	24%
Margins	5-6%	10-11%	7-9%	13-15%
Growth Rates	20-25%	20-25%	20-25%	20-25%

New Products

Door Frame	Window Frame	Color Coated Pipes	Hand Rails
			

As per annual report for 2015-16, door and window frames are well received by the market and company is expecting that these products will form a bigger part of sales mix. These products offer a 30% cost advantage over trading wooden frames.

Long Term Growth Prospects

Wider product acceptance: Traditionally steel tubes and pipes were used mainly for water infrastructure and heavy engineering applications. In recent years hollow sections are increasingly being used for bus body structures, telecom towers, oil & gas transportation, sewerage network, pedestrian bridges, structures constructed using steel like airports, malls, offices, metro and bus terminals, and other general engineering applications etc. As steel sections are becoming more affordable, these are replacing other structural materials like wood, brick and mortar, PVC etc.

Rising Capacities – Company has added capacities at a rapid rate of 22% per year and is expected to add additional capacity at the same rate over the next few years. With growing distribution network, sales can rise at around 20% per year for next several years.

Market share gains from unorganized sector - Smaller players are losing market share with the demand shifting to bigger players like APL Apollo. It has been tough for the small companies to face the difficult economic conditions over the last 2 years with falling steel prices. Small companies are also facing liquidity issues as the banks have squeezed credit due to high NPA in the sector. Organized players have become more cost efficient due to updated technology and access to capital.

Direct Forming technology to spur demand – Company is investing heavily in direct forming technology and it is the first one to introduce it in India. Direct Forming allows making hollow sections directly from flat sheet without making a round tube first. This saves material costs (largest cost component) and allows higher speed of manufacturing resulting in lower operating costs. Products made with this technology will cater to previously untapped demand.

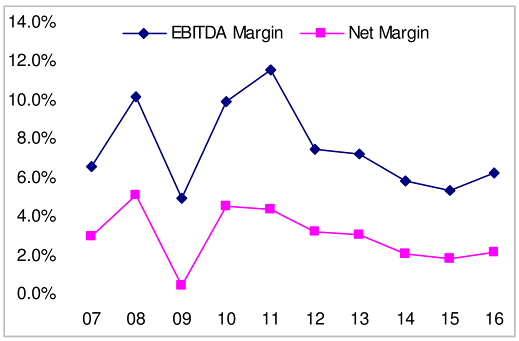
Focus on Distribution – Company is focusing on building a nationwide network of distributors supported by strategically located plants to cater to demand from tier II & III cities.

Expenses, Margins & Profits

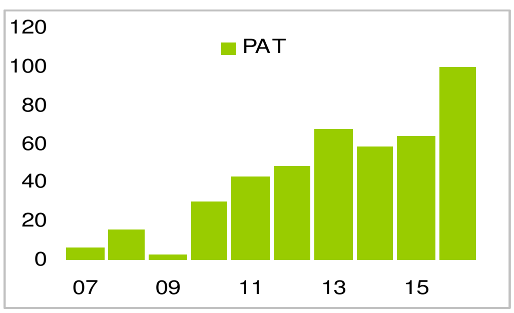
Manufacturing Value Chain

Company is a converter of steel into value added products. Cost of raw materials (HRC coils) make up 85% of the revenues and this is by far the biggest cost component. Other major costs are transportation costs and power costs.

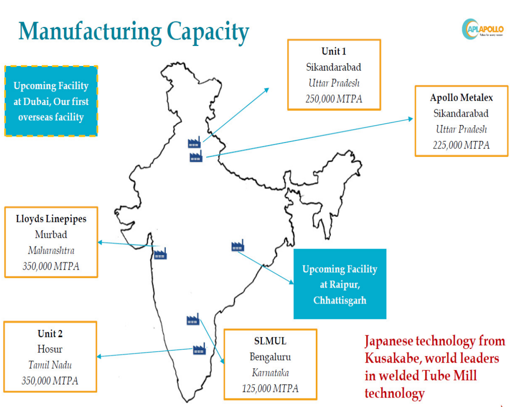
Revenue	100%
Raw Materials	85%
Power and Fuel	1.5%
Manpower	1.2%
Transportation	2.5%
Misc	1.8%
Operating Margin	8%



Company's EBITDA margins have been volatile due to volatility in steel prices which company has been able to pass on with some lag. Additionally inventory losses due to falling steel prices in recent years have reduced the EBITDA margins. Although margins appear to have bottomed out, this is a key monitorable.



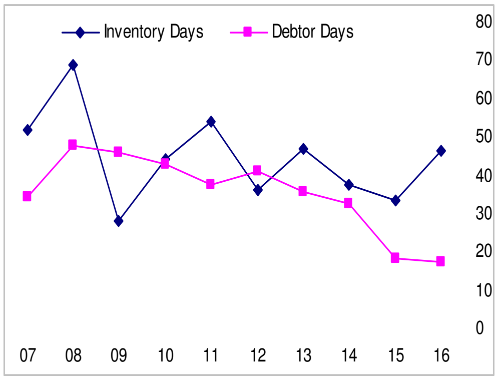
Drop in margins is more than offset of growth in sales resulting in PAT growing at a CAGR of 18% over the last 5 years. With stable steel prices, margins are likely to be stable and PAT can be expected to growth at around 18-20% in the medium term roughly in line with sales.



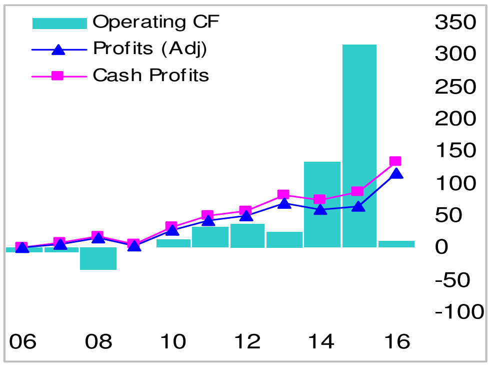
Company's manufacturing plants are located across the country to minimize transportation costs. A new upcoming facility at Raipur in Chhattisgarh will cater to eastern part of the country. Lower transportation costs may prove to be a competitive advantage in an otherwise commodity nature of the business.

As per the company's annual report, India has a competitive advantage over China and other countries that are major producers of ERW pipes in terms of labor costs and power costs. This claim needs to be independently verified.

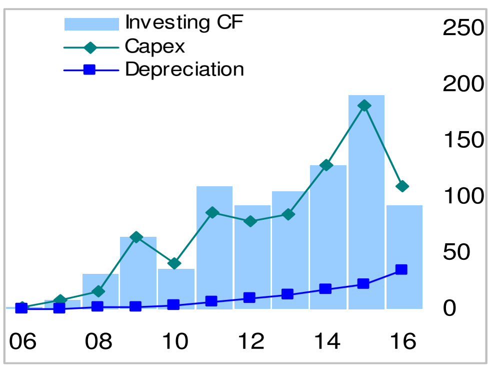
Cashflow Analysis



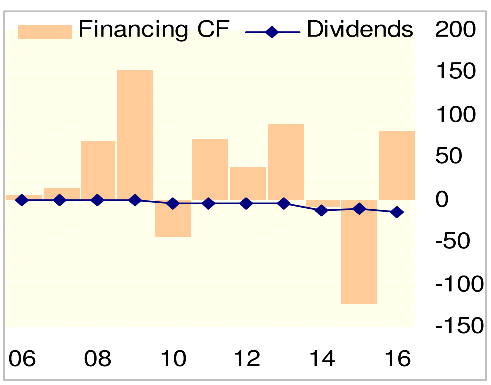
Working Capital Management - Company has efficiently managed receivables as demonstrated by low levels of debtor days. This also indicates company is not resorting to consignment sales and is able to recover cash from distributors quickly and distributors are also able to sell those quickly. It can be assumed that company's products are moving fast indicating growing acceptance. Inventory days are stable and at average of 45, are at reasonable levels for a manufacturing company. As the company is adding capacity at regular intervals over the last several years and this has resulted in occasional spike in inventory as company is stocking up inventory before starting a new plant. Spike in 2016 is a result of upcoming plant in Raipur.



Operating Cash flow – Company's operational cashflow is lumpy. In some years operating cash flow is higher than Net profits and cash profits while in other years it lags it. On a rolling 5-year average, casflow matches net profits. Most of the variation in operating cashflow is a result of variation in inventory levels, which in turn are driven by requirement from new plants. OCF is not an issue at the moment, however this needs to be monitored as this company has significant level of debt and a steady operating cashflow is needed to service this debt.

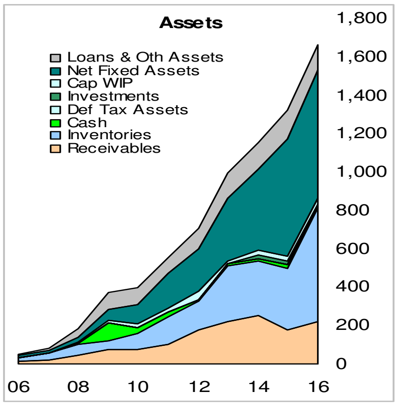


Investing Cash flow - Company has consistently invested all its operating cashflow into building new plants or acquiring other companies as seen from the investing cashflow. Most of the investing cashflow went into capital expenditures. Capital expenditures are also significantly higher than depreciation indicating addition of new assets, which is also reflected in rising capacities.

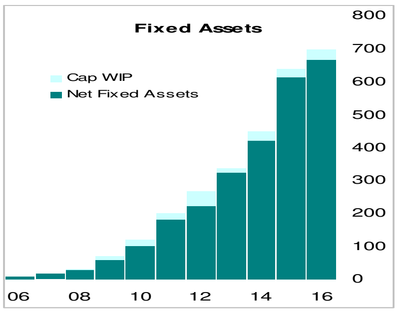


Financing Cash flow - Company's investment in building new capacities has often exceeded its operating cash flow requiring company to raise additional capital (both equity and debt). Only occasionally company has reduced the debt levels. This has restricted company's ability to pay dividends. Debt levels are a key monitorable and ability to service the debt is also a key monitorable.

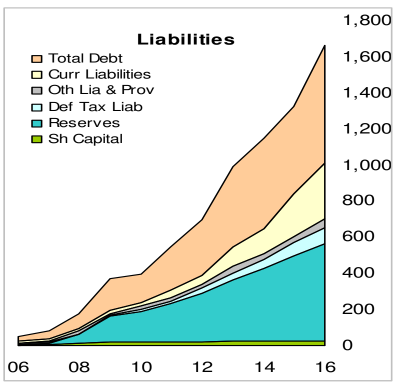
Balance Sheet Analysis



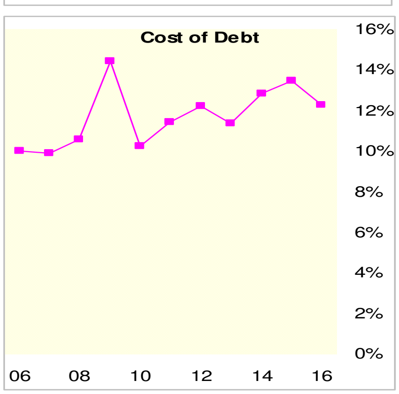
Company has a balance sheet size of 1600 Cr growing at a CAGR of 18% over the last 7-8 years mainly driven by addition of fixed assets and inventory. Receivables at roughly 200 Cr is at comfortable levels indicating ability of the company to recover cash from distributors. This in-turn indicates those distributors are able to sell the products quickly.
Pick up in inventories in 2016 can be attributable to new plant being built in Raipur and most of the inventory gains are from addition of raw material inventory. Finished good inventory is flat despite rising sales. Company has invested most of it's cash flow over last several years in operating assets hence non-operating assets like cash and investments are low.



Company has added capacities at a CAGR of 22% over the last 5 years resulting in large increase in fixed assets. Fixed assets form 45% of the balance sheet. Most of capacity is built over the last 5 years so company's assets are modern and use latest technologies resulting in lower costs.



Assets are funded by a mix of debt and capital and overall debt/equity levels have remained stable over last 5 years. Supplier credit is taking a growing share of funding mix indicating growing confidence of suppliers in the company. Although stable, overall debt levels are high and debt servicing is a key monitor able. Company is replying more on short-term debt indicating reluctance of banks to steel sector due to high levels in NPA in the sector.

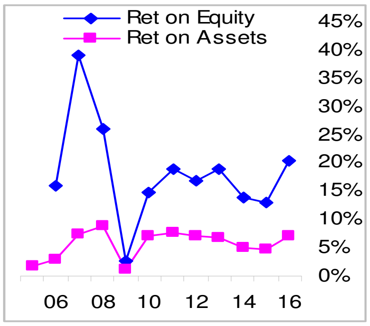


Cost of debt is trending up and is a cause of concern. If the NPA crisis in steel sector is resolved, cost of debt could come down but it will also enable competitors to add capacity. Cost of debt is also a limiting factor on company's valuation.

Capacities

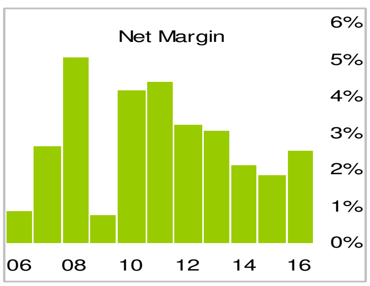
Unit	Location	Commenced On	Capacity (MTPA)
Unit 1	Sikandarabad UP	1986	250,000
SLMUL	Bengaluru, KA	2008 – Acquired	125,000
Unit 2	Houser, TN	2009	350,000
Apollo Metalex	Sikandarabad UP		225,000
Lloyds Linepipes	Murbad, MH	2010 – Acquired	350,000
Raipur	Raipur CH		

Du Pont Analysis

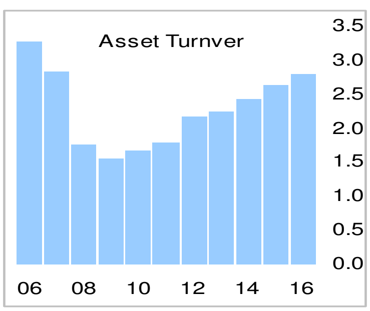


Company has generated an average ROE of 16% over last 5 years. A drop in ROE in 2014 and 2015 is due to inventory loss caused by falling steel prices. Steel prices are stable now and company can generate 18-20% ROE in next 5 years. Company has stated a goal of generating core ROE of 30% in it's vision 2020. However, definition of core ROE is unclear.

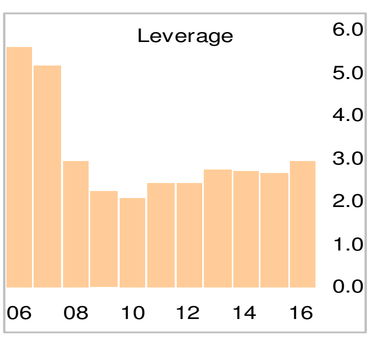
Return on assets has followed the same pattern as ROE.



Company's margins have dropped over the last 7-8 years since it started the expansion drive. Some of this can be attributed to volatile steel prices. Company may have undercut competition by lowering prices to push its products. However, with raw material costs making 85% of revenue, there is no room for further drop in margins.

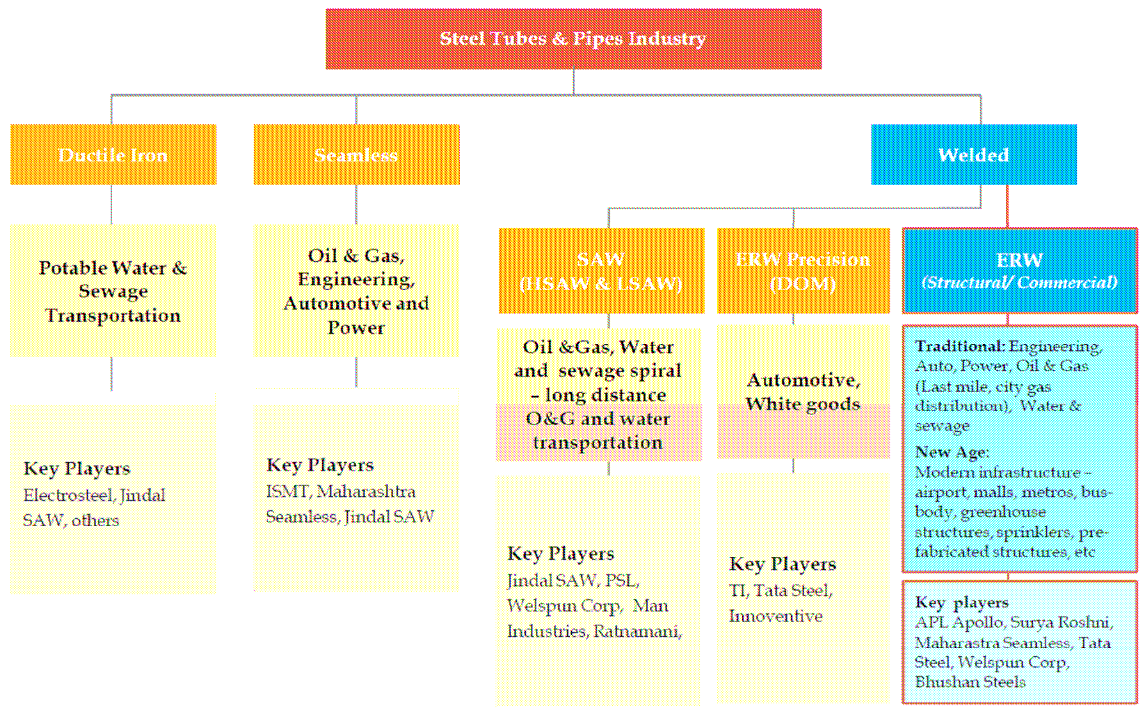


Company's asset turnover has consistently improved since the major capacity expansion that began in 2008-09. This is a bright spot in company's story as it indicates that it is able to utilize its capacities efficiently and sell all the products produced.



Company is highly leveraged. Being a low margin low ROA commodity player, it uses leverage to boost ROE. Leveraged dropped after major equity funding in 2008-09. Since then, leverage is trending up as company is borrowing money to build capacities. Company's debt indicators are key monitorables. Company is adding capacity at rapid rate as economics of scale can be one of the competitive advantage in this industry. Company is also trying to build capacities before competitors catch up to get a first mover advantage.

Industry & Peers



Surya Roshani is a major competitor who has managed to double the capacity in last 2-3 years from 4 lakhs MPTA to 8 lakh MTPA. Other players in ERW pipes are focusing on traditional uses in water infrastructure and not adding much capacity due to general slowdown in infrastructure sector. These players are also focusing on Tier 1.

Timeline

Year	*Event*
1986	Incorporated as Bihar Tubes Private limited by late Mr. Sudesh Gupta
1987	Setup a plant to manufacture ERW Black Pipes with an installed capacity of 6000 MT/Annum at Sikandarabad UP
1989	Expended its ERW Black Pipes manufacturing capacity to 24000 MT/Annum
1994	Galvanized Plant was commissioned with an installed capacity of 16000 MT/Annum
1995	IPO
2002	Gallium Mill–Sizes (½” - 2½”) –Capacity (25000 MT/PA)
2004	Another Gallium Mill–Sizes (1½” - 4”) –Capacity (45000 MT/PA). Developed hollow section technology.
2006	Another Gallium Mill–Sizes (½ - 2½”)-Speed (150 mtr/mnte) Capacity (30000MTPA)
2007	Apollo Metalex Private Limited becomes 100% subsidiary of the Company with coil galvanizing capacity of 24000 MT/PA
2008	Acquisition of 100% Equity of Shri Lakshmi Metal Udhyog Limited, Bangalore with total installed Tube capacity of 50,000 MT/PA. First step in pan India presense. Major capital infusion through conversion of warrants. (More details needed).
2009	Commissioned Unit II at Hosur, Tamilnadu ~ a world class plant spread over 24+ acres with installed production capacity of approx 200000 MTPA
2010	Name changed to APL Apollo Tubes Limited, acquired Lloyds Line Pipes Limited, as another 100% subsidiary
2011	Successfully completed commissioning of Hosur Plant
2012	Became largest ERW manufacturer in India
2013	Started APL Apollo Brand building initiative.
2014	Implemented SAP, Strengthened board
2015	Appointed M/s Delloite as Auditor.

Future Plans

Company has an ambitious plan to grow capacity from 13 Lakhs MTPA to 25 Lakhs MTPA from 2016 to 2020. The Company has planned a Capex of 500 crore in the next 3 years, which will be funded through internal accruals. With an operating cash flow of 140 Cr per year, this is a realistic plan. At this level, overall debt levels can remain steady and manageable.

Capacity (Lakh Tons Per Annum)	FY 16	FY 17	FY 18	FY 19	FY 20
Existing	9	12	13	13	13
Raipur			1	2	2
Dubai				1	3
Direct Forming Tech Lines			1	3	5
Bangalore - Precision Pipes				0.5	1
Bangalore - Online Galvanising				0.5	1
Total Capacity	**9**	**12**	**15**	**20**	**25**

Monitorables

Item	Date	Updates
Leverage Ratios	March 2016	Stable with cost of funds trending up.
Margins	June 2016	Net Margins are at 5 year high.
Operating Cash flow	March 2016	Sharp drop due to surge in RM inventory.
Credit Rating	June 2016	Amt 130.00 (enhanced from Rs.115 crore) [ICRA]A1+ (SO); re-affirmed

Valuation

Dividend Discount Model is used to value APL Apollo Tubes Ltd. Important parameters in this valuation model is growth rate of dividends and discount rate.

Growth Rate – Since this company is reinvesting all its operating cash flow in building new capacities its dividend payout is low and growth rate is high. A 3 stage DDM is used to model a scenario where company will continue to grow at a high rate during an initial period followed by a slowdown period in which company's ROE will decrease to an average level. Company's growth opportunities will continue to shrink for few more years. During this period, company is expected to increase its payout ratio, as it will not need to reinvest all its operating cash flow. Company's growth opportunities will reduce until growth is in line with nominal GDP growth rate. This rate will be used for determining terminal value.
Table below lists parameters used in estimating growth during all the above phases.

Growth Rate	
Growth Phase Years	3
Growth Phase ROE	22%
Slowdown Phase Years	7
Terminal ROE	16%
Div Growth Factor	106.0%

Dividend growth factor is the amount by which dividend will rise above the sustainable rate (retention ratio * ROE) to align with shrinking growth opportunities until the Perpetual phase. In perpetual phase, dividend will rise at the sustainable rate.

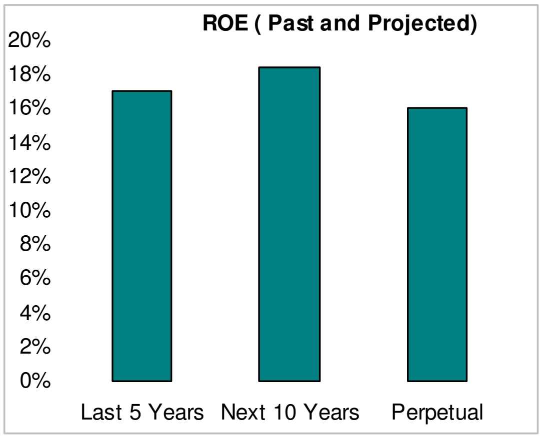
Discount Rate - Table below lists parameters used in determining discount rate. Beta is calculated by using monthly returns over the last 3 years. Beta of the company is adjusted to reflect the financial and business risk of the company that may not be reflected in the realized beta over the last 3 years.

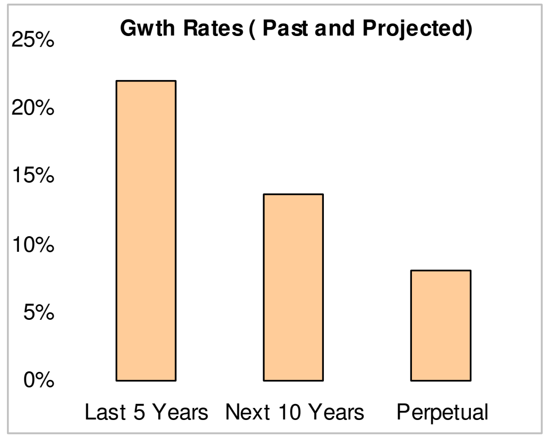
Discount Rate (CAPM)	
Equity Risk Premium for India - ERP	5%
Risk Free Rate - RFR	7%
Beta	1.2
Discount Rate = RFR + Beta * ERP	13.0%

Based on these assumptions/parameters, profits, dividends and other financial statistics are estimated and their present value is calculated as shown below.

Year end	Net Worth	Ret on Equity	Sales	Div	Profits	Sust Growth Rate	Payout Ratio	PV Factor	Present Value
2010	191	15%	662	5	28		17%		
2011	229	19%	985	5	43	17%	11%		
2012	291	17%	1,536	5	49	15%	10%		
2013	364	19%	2,247	5	69	18%	7%		
2014	425	14%	2,790	13	59	11%	22%		
2015	495	13%	3,482	12	64	11%	18%		
2016	568	21%	4,656	14	117	18%	12%		
2017	670	21%		18	141	18%	12%	1.1	16
2018	794	22%		22	171	19%	13%	1.3	17
2019	942	22%		28	207	19%	13%	1.4	19
2020	1,122	21%		35	237	18%	15%	1.6	22
2021	1,324	20%		44	269	17%	16%	1.8	24
2022	1,549	19%		54	301	16%	18%	2.1	26
2023	1,795	19%		67	333	15%	20%	2.4	28
2024	2,062	18%		81	365	14%	22%	2.7	31
2025	2,345	17%		98	395	13%	25%	3.0	33
2026	2,643	16%		117	423	12%	28%	3.4	35
2027	2,948	16%		139	472	11%	29%	3.8	36
2028	3,281	16%		164	525	11%	31%	4.3	38
2029	3,643	16%		192	583	11%	33%	4.9	39
2030	4,033	16%		226	645	10%	35%	5.5	41
2031	4,452	16%		264	712	10%	37%	6.3	42
2032	4,900	16%		308	784	10%	39%	7.1	44
2033	5,376	16%		359	860	9%	42%	8.0	45
2034	5,878	16%		416	940	9%	44%	9.0	46
2035	6,402	16%		480	1,024	9%	47%	10.2	47
2036	6,947	16%		552	1,112	8.1%	50%	11.5	48

Growth Rates							
Last 5 Years	20%	17%		24%	22%	15%	13%
Next 10 Years	17%	19%		24%	14%	16%	18%
Perpetual	9%	16%		8%	8%	8%	50%





Terminal value of the business is calculated using Gordon Growth Model and Exit Multiple Model. In case of GGM, discount rate used for determining terminal value is assumed to be lower than current discount rate to reflect growth and maturity of the business model over the years and general slowdown in economic growth rate over the long term from current high levels. Exit Multiple used is the Price to Earnings ratio and it is determined using the current P/E ratios of similar companies in the capital goods/steel sector. Present value of the business is calculated by adding present value of all estimated cash flows and terminal value. Final present value is determined by taking average of the values determined using these methods.

	Exit Multiple	GGM	Average
Exit PE	15	15	
Exit Disc Rate		12%	
Terminal Value	16,673	16,362	
PV of Term Value	1,447	1,420	
Present Value (Rs. Cr)	2,123	2,096	2,109
P/E	18	18	18
P/B	3.7	3.7	3.7
P/S	0.5	0.5	0.5
Terminal p/b	2.4	2.4	
Terminal Value/PV	68%	68%	

The table above also lists implied TTM price multiples (P/E, P/B and P/S) based on the valuation.

APL Apollo Tubes Ltd is valued at Rs. 2109 Cr compared to market value of 2038 Cr as of Sept 30 2016. Company is also valued using Free Cash flow to Firm method using weighted average cost of capital as the discount rate. This method also results in similar valuation.

SWOT Analysis

Strengths	**Weaknesses**
1. Largest player in the ERW Segments 2. Plants are geographically located and uses latest technologies 3. Acquired sick companies and successfully turned them around. 4. Able to introduce innovative products.	1. Debt levels are high. 2. Debt servicing levels are below comfort levels. 3. Products are commodity and company competes on price.
Opportunities	**Threats**
1. Products are gaining acceptance. 2. Organized players are gaining market share from unorganized players. 3. Current market share is low, can grow further. 4. Funding costs could go down once NPA issue in steel sector is resolved.	1. Competitors are adding capacity. 2. Slowdown in demand in China can result in dumping of ERW pipes in India 3. Banks are reluctant to lend to steel sector due to high levels of NPA in the sector. 4. Demand is cyclical.

Financial &Operational Data

Year	Capacity	Production	Utilization	Sales	EBITDA	PAT	Sales Realization (Rs/Kg)	EBITDA (Rs/Kg)	Distributors	Sales/Distributor (Rs Cr)	EBITDA Margin	Net Margin
07	80	59	74%	230	15	6.75	39.0	2.5	100	2.3	6.5%	2.9%
08	198	76	38%	316	32	16	41.6	4.2	125	2.5	10.1%	5.1%
09	234	120	51%	573	28	2.54	47.8	2.3	150	3.8	4.9%	0.4%
10	274	165	60%	666	66	30	40.4	4.0	150	4.4	9.9%	4.5%
11	490	195	40%	985	114	43	50.5	5.8	175	5.6	11.6%	4.4%
12	500	295	59%	1,536	115	49	52.1	3.9	200	7.7	7.5%	3.2%
13	600	464	77%	2,247	161	68	48.4	3.5	275	8.2	7.2%	3.0%
14	800	572	72%	2,861	166	59	50.0	2.9	300	9.5	5.8%	2.1%
15	1050	682	65%	3,481	186	64	51.0	2.7	375	9.3	5.3%	1.8%
16	1300	900	69%	4,656	291	100	51.7	3.2	600	7.8	6.3%	2.1%
5 Yr CAGR	22%	36%		36%	21%	18%	0%		28%	7%		