JCR-VIS SECTOR UPDATE

Long Steel Products

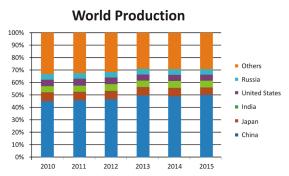
AUGUST 2017

GLOBAL STEEL INDUSTRY

Steel is the backbone of the infrastructural development in an economy. However, demand continues to be cyclical in nature and relies on economic growth. Steel sector continues to be in a state of overcapacity with total installed capacity at 2,300 million metric tons (MT) while around 1,500MT is needed to meet global demand.

Actual production during 2016 increased to 1,630MT and has doubled since 2000. Capacity additions continued until 2015 when China is estimated to have added 552MT of capacity which is equivalent to seven times US steel production in 2015. China accounts for around half of global production with top 5 producers representing 70% of global production.

In order to address the significant overcapacity prevalent in the global steel industry, countries with domestic steel making capacity have moved towards protectionism through imposition of anti-dumping duty to protect local industry.



Meanwhile, China has also made efforts to consolidate production (merger of two largest steel mills resulting in second largest and cut excess supply to address concerns about pollution and over capacity.

On the demand front, global demand for steel picked up in the second half of 2016 due to stimulus package announced by the Chinese Government. Global demand is projected to rise by 1.3% and 0.9% in 2017 and 2018, respectively, as per World Steel Association. Strong demand from emerging and developing economies along with higher fiscal stimulus and infrastructure spending by United States is projected to support demand and price recovery. However, China which accounted for 45% of global demand is expected to post flat growth due to government's resolve to rebalance the economy from investment led model and clamp down on the real estate sector, a key driver of steel demand growth.

Major development during 2017 for the steel sector was the Chinese government's announcement to slash steel capacity by 50 million MT to tackle pollution and curb excess supply. As per Reuters, around 84% of the target for full year has been achieved which has been the primary contributor to the increase in steel prices in 2017 which rebounded after having declined for the past two years. As part of its medium term goal, Chinese government plans to reduce 100 million to 150 million MT of excess steel capacity.

PRODUCTION PROCESS

Electric Arc Furnace (EAF)/ Induction Furnace	Steel scrap is melted at optimum temperature	$\begin{array}{c} & & & \\ \hline \\ DRI/HBI/Scrap \end{array} \rightarrow \begin{array}{c} & & \\ \hline \\ Electric Arc Furnace \end{array} \rightarrow \begin{array}{c} & \\ \hline \\ Ladle Furnace \end{array}$
Ladle Refining Furnace	Melted steel passes through the 40 ton ladle to achieve desirable steel qualities	Reheating Furnace
Continuous Casting Machine (CCM)	CCM transforms molten steel into hardened billets and round shafts for sale and rerolling.	Rolling Mill Billets
Automatic Rolling Mill	Billets are then transferred into the automatic rolling mill that enables ASI to produce a variety of rebars.	Wire Rods Wire Rods

INDUSTRY STRUCTURE

Long steel sector in the country is highly fragmented with over 330¹ melting and re-rolling mills. Only 4 long steel players are currently listed with less than 10 producers that can be classified as top-tier players. Total industry demand for long products is estimated at around 7m MT. Around half of this demand is being met through imports with the remaining demand being catered to by local producers. Only one-fourth of the local production is estimated to be by top-tier players who can cater to demand for upcoming CPEC and mega-projects. The informal sector primarily operates on inefficient plants and outdated technology.

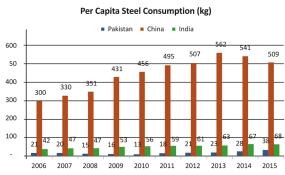
PRODUCTS

Long Steel Products comprise bars, structural sections, and wire products. The scrap from ship breaking and automotive is melted to form billets which are then rolled on stands to form bars. Bars are generally divided into merchant bars and reinforcing bars (rebars). Application of merchant bars is in the fabrication of furniture, whereas rebars are used in strengthening concrete in bridges, highways, and buildings.

DEMAND DYNAMICS

Demand for long products has grown at a healthy CAGR of 14% over the last three years. As per estimates, Pakistan's per capital finished steel consumption at around 45kg/capita is well below World average of 208kg/

capita indicating significant potential for growth. CPEC related projects, higher Public Sector Development Programme (PSDP) allocation in FY18 (increased by 40% to Rs. 1trillion) and increased construction of housing schemes bodes well for the demand outlook for sector. Healthy demand for long steel products is evident from most top-tier players having two month order pipeline. A major demand driver is the planned construction of hydropower dams; as per industry estimates 8,000-10,000 MT per month of demand for the next 8 years due to construction of Dasu dam while Suki Kinari is expected

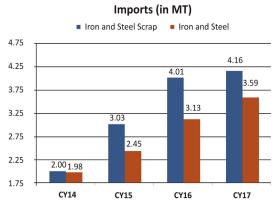


to result in incremental demand of 5,000 MT per month for the next 4 years. Given the importance of timely availability and quality, most of these orders are expected to be catered to by top-tier players.

IMPORTS

Given the excess capacities in China and low availability of quality long steel products, imports have witnessed a rising trend over the last few years. According to Pakistan Bureau of Statistics, finished steel imports continue

to outpace finished local production. Finished steel imports have grown at a 3 year (FY13-FY16) CAGR of 16% while local finished steel production has grown at a 3 year (FY13-FY16) CAGR of 10%. Post increase in regulatory duty, month on month imports have witnessed a decline post January'2017 after having spiked during the October'2017 to January'2017. While top-tier local players have an advantage of catering to customer requirements as per desired quality (customers can get the product changed if it is not as per the required quality) and in a timely manner, imports still continue to be available at a slightly lower price vis-à-vis locally produced steel.



1 Data extracted from Pakistan Steel Melters Association and Pakistan Steel Re-rolling Mills Association.

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DUTY STRUCTURE

To shield the local players from dumping, National Tariff Commission (NTC) has imposed regulatory and antidumping duty on imports of rebars and billets. Local players enjoy 24% and 30% duty protection on imported billets and rebars, respectively. Imposition of duty on imported billets in June'2017 is expected to reduce competitiveness of non-integrated players (who do not have melting furnace or there is a mismatch between melting and rolling capacity). Amongst top-tier players, Agha Steel Industries (ASI) and Amreli Steels (ASTL) are expected to benefit the most. Imposition of anti-dumping duty on imported re-bars (under review) will further enhance competitive advantage from imports.

CAPACITY UTILIZATION

Most large players are operating at high capacity utilization levels indicating healthy demand for rebars. Capacity utilization of three large players Mughal (MUGHAL), ASTL and ASI stood at 75% (FY16), 88% (FY17) and 91% (FY17), respectively.

ASTL		MUGHAL		ASI		
In MT	FY17	In MT	FY16	In MT	FY17	
Capacity		Capacity		Capacity	Capacity	
Billets	200,000	Billets	155,719	Billets	216,000	
Bars	180,000	Bars	326,563	Bars	135,000	
Production		Production		Production		
Billets	163,778	Billets	99,657	Billets	127,656	
Bars	158,206	Bars	245,675	Bars	122,656	
Capacity Utilization		Capacity Utilization		Capacity U	Capacity Utilization	
Billets	82%	Billets	64%	Billets	59%	
Bars	88%	Bars	75%	Bars	91%	

EXPANSION

Given the robust demand outlook and most players operating at high capacity utilization levels, most of the top-tier players are undergoing expansion to enhance both melting and rolling capacity. Over the next two years, additional capacity (only of top-tier players) coming online of billets and bars is estimated at around 1million and 2million MT, respectively. A number of new players (Liberty & Naveena Steel) are also considering expansion but the plans have not been finalized as yet.

In MT	Current	After Expansion			
AMRELI STEELS					
Billets	200,000	600,000			
Bars	180,000	750,000			
AGHA STEEL INDUSTRIES					
Billets	250,000	450,000			
Bars	150,000	750,000			
MUGHAL IRON AND STEEL					
Billets	155,719	546,000			
Bars	326,563	1,000,000			
DOST STEEL					
Bars	350,000	NA			

BUSINESS RISK FACTORS

HEALTHY DEMAND OUTLOOK SUPPORTS BUSINESS RISK PROFILE OF LONG STEEL PLAYERS

Significant infrastructure development planned to be undertaken under CPEC, high PSDP spending and construction of mega housing schemes is expected to keep demand outlook healthy over the medium term. However, any significant delay in planned projects due to political uncertainty pre-elections and cut in PSDP spending post elections in order to curtail deficits may impact sales.

PRICING POWER

Higher demand and imposition of RD & ADD has improved pricing power of industry players. This has allowed companies to pass on impact of higher steel scrap prices which have increased by 28.5% in calendar year 2017. As per industry players room for further increase in prices remains; although same is not planned to be undertaken in order to capture market share in view of existing capacities coming online. However, any change in duty structure or demand outlook may impact pricing power and margins.

SIZEABLE EXPANSION BY MAJOR PLAYERS TO INCREASE COMPETITION

Three of the major existing players are increasing their capacity by over 3(x). This alongwith addition of capacities by second tier players and planned entry of new players is expected to intensify competition. JCR-VIS believes that integrated players with higher plant efficiency (lower power consumption in terms of KWH/Ton) would be well positioned vis-à-vis competitors. Industry players believe that growth in demand and reduction in imports is expected to cater to additional capacities coming online.

EXPANSION TO PROVIDE COMPETITIVE EDGE TO TOP-TIER PLAYERS

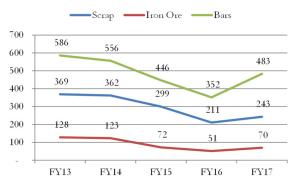
Expansion is expected to provide competitive edge to top-tier players who will be able to compete with low quality producers even in terms of prices due to efficiency benefits from new plants. The new plants will have lower power consumption (around 30% power cost savings) and continuous process of making rebars from billets (no heating of billets will be required which will result in saving of labour and heating cost of around 2,500/ton). Moreover, conversion yield of billets to rebars is also expected to improve post expansion.

INCREASE IN RAW MATERIAL AND POWER COST

Increase in raw material (scrap) and power cost, which are the two major cost components for long steel

players, may negatively impact margins. Moreover, rupee depreciation which besides increasing raw material cost will also increase working capital requirements for industry players. In a healthy demand outlook scenario, JCR-VIS expects all increase in costs to be passed on to consumers.





FINANCIAL PROFILE

Amounts in Rs.m	FY14	FY15	FY16	FY17	
AMRELI STEELS					
Sales	11,965	14,414	12,400	13,284	
Gross Margin	12%	17%	23%	19%	
Operating Margin	9%	14%	18%	13%	
Net Margin	2%	7%	10%	8%	
RAO	2%	8%	8%	6%	
ROE	9%	26%	14%	12%	
	MUGHAL II	RON AND STEEL			
Sales	5,973	12,241	18,983	18,803	
Gross Margin	12%	11%	11%	10%	
Net Margin	6%	5%	5%	5%	
RAO	6%	6%	8%	9%	
ROE	24%	19%	21%	18%	
AGHA STEEL INDUSTRIES					
Sales of bars MT	NA	103,171	115,227	132,309	
Sales (Rs.m)	4,145	8,477	8,768	9,799	
Gross Margin	20%	19%	23%	28%	
Net Margin	5%	8%	15%	15%	
RAO	2%	7%	13%	15%	
ROE	18%	44%	52%	40%	

Amounts in Rs.m	FY14	FY15	FY16	FY17	
AMRELI STEELS					
Total Debt	4,441	4,314	3,734	3,247	
Total Equity	2,879	3,952	8,861	9,141	
Gearing Ratio	1.54	1.09	0.42	0.36	
FFO	1,265	2,115	2,192	1,032	
FFO to Debt	28%	49%	59%	42%	
	MUGHAL	IRON AND STEEL			
Total Debt	4,604	3,449	4,545	3,878	
Total Equity	1,645	3,405	4,235	5,377	
Gearing Ratio	2.80	1.01	1.07	0.72	
FFO	393	781	1,214	936	
FFO to Debt	9%	23%	27%	32%	
AGHA STEEL INDUSTRIES					
Total Debt	6,236	6,852	6,063	5,413	
Total Equity	1,176	1,836	3,113	4,486	
Gearing Ratio	5.30	3.73	1.95	1.21	
FFO	392	807	1,349	1,906	
FFO / Total Debt	6%	12%	22%	35%	

Amounts in Rs.m	FY14	FY15	FY16	FY17	
AMRELI STEELS					
Stock in Trade	1,565	2,275	4,410	2,526	
Short Term debt	601	3,164	3,210	2,418	
Trade debts	930	1,158	2,071	1,546	
Payables	874	989	1,081	1,207	
	MUGHAL I	RON AND STEEL			
Stock in Trade	2,683	4,812	4,221	2,603	
Short Term debt	2,992	2,498	3,571	3,878	
Trade debts	321	473	940	1,494	
Payables	586	4,270	2,254	1,502	
AGHA STEEL INDUSTRIES					
Stock in Trade	3,534	3,967	3,163	2,693	
Short Term debt	3,694	4,731	4,547	4,107	
Trade debts	800	1,212	1,714	1,937	
Payables	1,573	797	833	627	

With expanding construction activities, volumetric sales of two of the three major players have doubled over the last three years with the third player also witnessing healthy increase in sales. Given that most players are undergoing BMR/capacity expansion and in the backdrop of healthy demand outlook, sales of top-tier players are expected to grow.

Margins for top-tier industry players have shown a varying trend with the same ranging between 10%-29%. JCR-VIS believes that variation in margins is a function of differences in composition of production plant (integrated vs non-integrated) and power consumption. Margins of ASI benefits from efficient plant (lowest power consumption vis-à-vis competition, and in-house gas production) with melting and rolling facility in the same place resulting in limited transportation charges. Mughal Steel margins are the lowest amongst top-tier players due to power constraints and high utilization of imported billets. Margins of Mughal Steel have declined in the ongoing year due to rising billet prices and increase in duty on imported billets. ASTL margins compare favorably to Mughal but higher transportation charges due to shipping of billets from SITE to Dhabeji for rolling result in lower margins vis-à-vis ASI.

With repayment of debt and retained profits, gearing levels have witnessed a noticeable decline for most players. Gearing levels for ASI is on the higher side vis-à-vis other players. Going forward, gearing level of ASI may depend on timing and quantum of cash inflows from proposed Initial Public Offering (IPO). Gearing levels for ASTL and Mughal are expected to remain within manageable levels. Given the improvement in profitability, cash flows have grown and now provide healthy buffer against upcoming debt payments for most players.

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