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Metal pipes industry shows its mettle in pandemic: Demand pipeline strong

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The iron and steel pipe industry is one of the key sectors in the infrastructure development of our country. From the extension of pipelines for river interlinking to providing drinking water to every household, the industry plays a critical role in the development of the nation. The overall industry size has grown at double-digit over the last four years and is currently estimated to be around Rs.60,000 crore. The major growth drivers for the industry include demand emanating from domestic water infrastructure, oil exploration and transportation, construction, irrigation, infrastructure, and expansion of gas pipelines such as national gas grid and city gas distribution. While the covid-19 pandemic has caused certain disruptions, the industry witnessed a V-shape recovery post the removal of restrictions and surpassed pre-covid levels as evident by 16.61% growth in steel tube and pipe consumption in March 2021 as compared with March 2020. However, the industry registered degrowth of nearly 15% during the fiscal year 2020-21 due to muted production and consumption in the lockdown period. Going forward, CARE Ratings believes that the industry is resilient enough to be back on a growth path although it remains to be seen how far the industry players can combat with a steep increase in raw material prices and protect their margins. The industry has witnessed consolidation with increasing dominance of larger players especially in Electric Welded Resistance (ERW) segment which has been the most fragmented segment historically. Operating margins of major industry players have expanded by nearly 350 bps to 12.5% over FY12 to FY20 period. Industry leverage levels peaked in FY15 and FY16 and have improved consistently since then which is expected to continue amid continued debt reduction aided by healthy profitability.

Global Industry Scenario – Under the shadows of pandemic

The world has faced an unprecedented blow by the pandemic and the human toll is continuing to grow as the infections continue to spiral across the globe. Due to the first wave of pandemic during 2020, the global steel pipes industry recorded a slump of 10.60% implying destruction of 7.3 million tonnes in consumption. The demand for steel pipes plunged as the construction activities halted with the rising number of infections; however, as the first wave retracted, the governments responded with hefty spending on infrastructure to boost the economies. When the markets were just witnessing glimpses of normalcy, it got caught up in the second wave of the pandemic. Curtailment measures like lockdowns and curfews once again took the centre stage resulting in supply chain disruptions, labour shortages, financial losses, and temporary adverse impact on investments. One of the key demand drivers for steel pipes is the oil & gas industry which faced its worst crisis ever with oil prices plummeting to USD 21.04 per barrel during covid-19 first wave. Although the oil prices have regained a level above USD 60 per barrel from February 2021 because of a production cut to protect margins, the demand is slowly regaining normalcy. Hence, with no impetus on capital expenditure by oil producers in near future, the demand for pipes from the oil & gas sector remains subdued in the short term. However, as the governments across the world refocus on infrastructure projects such as water and sewage systems and oil and gas pipeline networks, the growth is bound to come back. Recovery in oil prices and a parallel improvement in spending on exploration and production activities is expected to brighten the medium-term outlook for oil pipeline-related infrastructure projects.

Indian Steel Pipe: Battered but ready to sprint

India's iron and steel pipe and tubes industry, valued at nearly Rs.60,000 crore, accounts for around 8% of the global steel pipe market. The production has grown at a CAGR of 7.69% from 4.97 million tonnes in FY17 to 6.68 million tonnes in FY20 attributable to incremental demand emanating from growth in domestic water infrastructure mainly driven by Jal Jeevan Mission, oil exploration, construction, infrastructure, and expansion of gas pipelines such as national gas grid and city gas distribution. As a result, the consumption growth outpaced the production growth and expanded with a CAGR of 11.03% over the period FY17 to FY20.

The last decade has witnessed an evolution for the Indian pipe and tube manufacturers in wake of growing demand and capital expenditure for modernization and capacity creation in end user industries. As a result, the steel pipe and tubes manufacturers have successfully scaled their operations to match the global economic size. The overall sales of the domestic players have nearly doubled in the last decade despite a contraction during FY20 due to lower metal prices and loss of volumes because of the worldwide pandemic hitting the volumes.

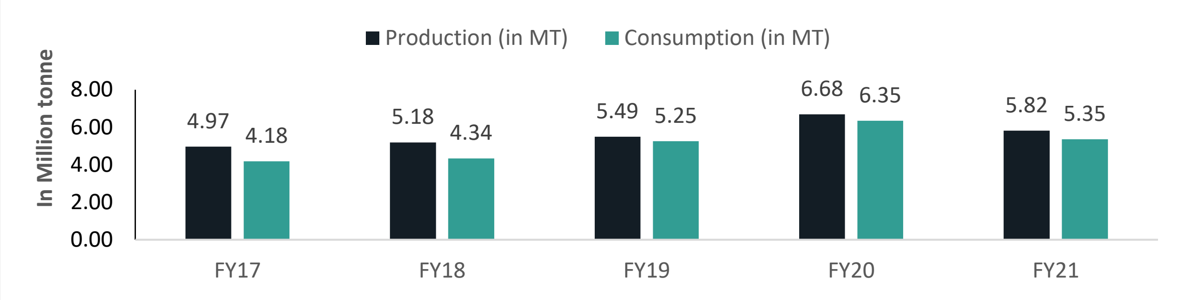


Exhibit 1: Production and Consumption trends (Source: CMIE)

Due to their competitive pricing, high quality, and geographical advantages, there is a huge demand for Indian manufactured pipes from regions such as Europe, Thailand, Malaysia, the Middle East, and Indonesia. However, as domestic consumption increased rapidly, the volume of exports declined and the gap between exports and imports have narrowed over the years. Moreover, domestic industry has less capacity for high-temperature-resistant pipes used for drilling and oil exploration, which are generally imported by the oil refineries in India. Expansion in refining capacity and renewed emphasis on oil exploration by GOI to reduce crude oil import bill meant imports of pipes went up in FY19 and FY20.

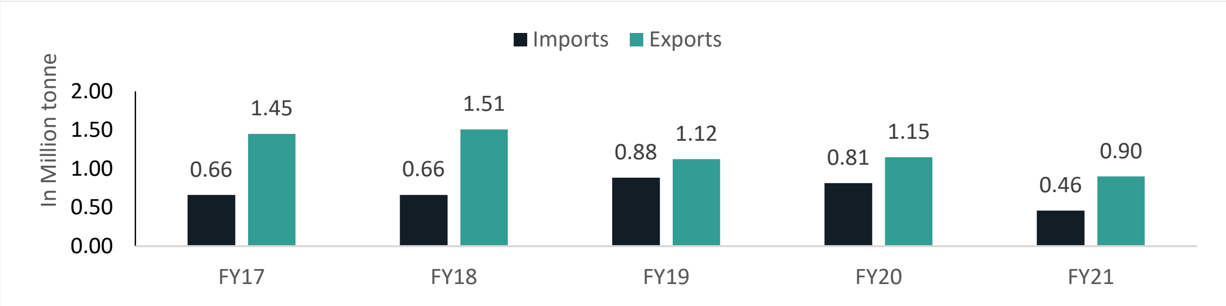


Exhibit 2: Imports and Exports trends (Source: CMIE)

Changing industry dynamics

The domestic demand for iron and steel pipes has gone through a paradigm shift with new verticals and novel applications of steel pipes coming up with the time. The below pie chart presents the evolution of demand from 2010 to 2020.

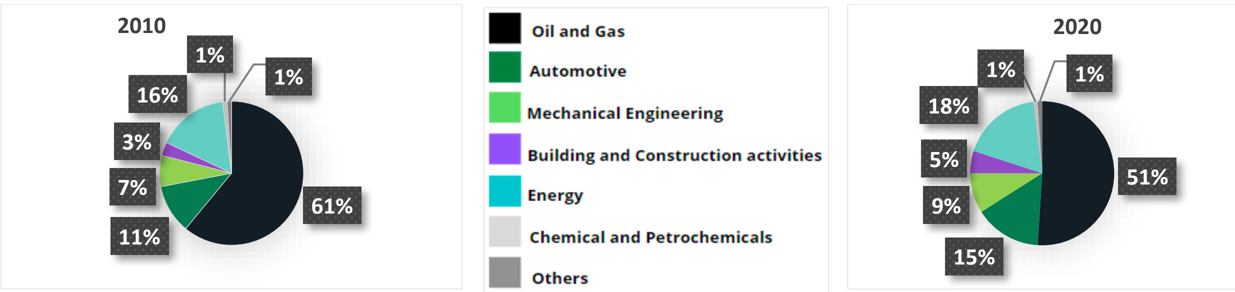
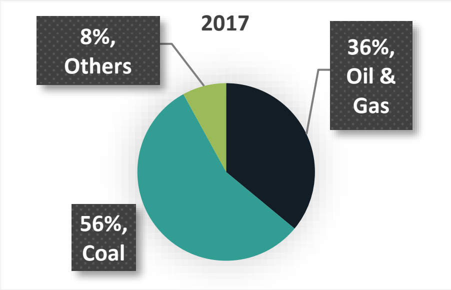


Exhibit 3: Demand distribution of Steel Pipe (Source: BP Statistical Review)

Although the percentage share of demand coming from oil & gas may seem reduced in above figure, in terms of absolute number, the same has increased significantly. Increasing usage of steel pipes in automotive and India's changing energy mix has led to the increase in demand share of steel pipes on these fronts. Also, increase in usage of steel pipes in railways, furniture, platforms, fencing in malls, and other new applications in the construction industry has also changed the dynamics to some extent. According to Petroleum and Natural Gas Regulatory Board (PNGRB), the energy mix of India is going to change, further benefitting the demand for steel pipes.



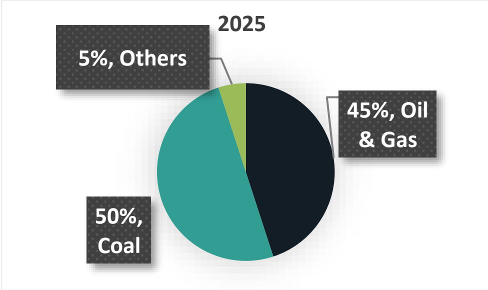


Exhibit 4: Changing Energy Mix (Source: PNGRB)

The industry is expected to continue growing at a steady rate since it has surplus capacity, and additional demand will be absorbed going forward. Let us look at the capacities present with the domestic players in different segments.

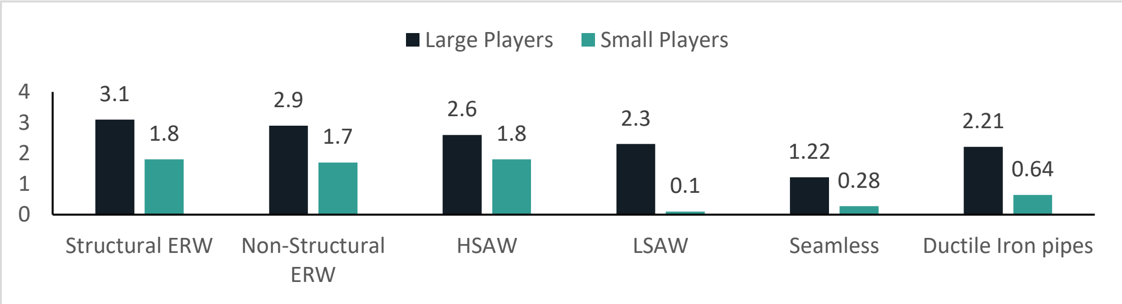


Exhibit 5: Installed capacities in different segments (Source: CARE Ratings)

Notwithstanding such large capacities, domestic industry faces the problem of under-capacity utilization due to order-based nature of businesses especially in HSAW (Helical Submerged Arc Welded) and LSAW (Longitudinal Submerged Arc Welded) pipes segments. It not only creates stress on keeping the prices competitive globally but it also puts the domestic players under leverage as it is a significantly capital-intensive industry. However, as discussed earlier, the steel pipe industry is expected to witness healthy demand in the coming years.

Oil & Gas Sector – A vital cog to Indian pipe Industry

During FY18-FY20, the Indian economy witnessed a lower GDP growth than the average of the decade which further deteriorated to a negative growth rate in FY21 due to the pandemic. Notwithstanding these downturns, India is embarked on achieving a USD 5 trillion economy with healthy growth expected over the next few years. Oil is synonymous with growth and a growing economy certainly needs oil; a study by the Organization of the Petroleum Exporting Countries (OPEC) shows that India boasts of the highest growth in demand for oil from 2020-2045 with a CAGR of nearly 4% to reach 11.1 million barrels per day. Currently, India contributes about 5% of world's total oil demand in 2020 which is expected to jump to 10% by 2045. To match the increasing global demand for oil, the oil sector is now witnessing revival in capex to garner the required supply growth which brings in several global opportunities to pipe manufacturers. As per industry estimates, there are a total of 1,103 pipeline projects currently ongoing across the globe with a pipeline demand of 63,600 KMT worth approximately USD 468 billion (nearly Rs.34.16 lakh crore) to be completed over the period 2019-2022.

Another major demand centre for pipes is natural gas transportation and distribution. As per PNGRB, the 9th and 10th round of bidding for city gas distribution organized in late 2018 covered 50.61% population spread over 41.74% of the geographical area and is expected to require 1.74 lakh inch-Km of the pipeline. Out of this 1.74 lakh inch-km requirement, 75,224 inch-km has already been laid till September 2020. Also, a total of 16 projects for new gas pipelines or extension of the current pipeline network has been authorized by the government in FY20 and H1FY21 which is approximately 9,000 km of pipelines and is expected to be completed within the next 3 years. Though India is taking steps to increase oil and gas production, the focus is more on the development of midstream, refineries, and petrochemicals infrastructure for greater processing, transport, and storage. India faces a shortage of supply of crude oil and that is one of the prime reasons which has led the oil and gas majors in India to look for new sources of oil and gas.

Water Transportation – New opportunities

The country's per capita availability of water stands at only 1544 m3 which is primarily because the population contributes to 17% of the global population but has only 4% of freshwater resources. As the demand for water increases, a study by GOI suggests that the demand is expected to be twice that of supply by 2030. To address this growing demand, the government has come up with the interlinking of rivers project which aims to build 30 river links to connect 37 rivers across the nation through a network of over 3,000 storage dams to form a gigantic South Asian Water Grid. This project is expected to create a huge demand of HSAW pipes and ductile iron pipes.

While Jal Jeevan mission announced by GOI aims at providing functional tap connection to every rural household, another major step, AMRUT scheme aims at enhancing sewage treatment capacities and providing assured water supply to the urban household. Both these policy initiatives combined are expected to boost the demand for ERW, DI, and HSAW pipes.

From FY16-FY20, Rs.5,000 crore was allocated by the government to AMRUT Scheme which has been increased in union budget FY22 to Rs.7,300 crore. With such high budgetary allocations for these projects which have piped supply of water as their fundamental aim, it is expected that Indian players operating in ERW, DI, and HSAW segments are likely to benefit from these conducive policy initiatives.

Budget impact

In the union budget for FY22, announced on February 01, 2021, the finance minister proposed to undertake increased capital expenditure of Rs.5.54 lakh crore in the current fiscal year in addition to giving thrust on monetizing assets to achieve the goals of the National Infrastructure Pipeline (NIP). While several sectors will be benefitting from the boost to government infrastructure, with respect to the pipe industry it was water infrastructure that took the limelight. Jal Jeevan mission has always seen a decent allocation in budget every year being in the range of Rs.10,000 – Rs.11,000 crore annually but in budget 2021-2022, with a whooping budgeted expenditure of Rs.50,000 crore, it has gathered eyeballs of pipe manufacturers especially operating in HSAW and DI pipes segment. AMRUT scheme also saw an increase in budgeted allocation from approximately Rs.7,300 crore in the union budget FY22. In the natural gas sector, the Prime Minister has already announced the target of 'One nation, one gas grid' in which the natural gas grid is expected to expand by 17,000 Km taking the total length of pipelines to 34,500 Km by 2025. Efforts to move towards a gas-based economy along with the impetus on implementation of city gas distribution networks is going to be a major driver for the demand in the pipe sector.

The scars of Pandemic

The first wave of covid-19 deeply affected the steel pipe and tube industry during Q1FY21. Both supply and demand were impacted due to the closure of cross-country borders and stringent nationwide lockdown. As a result, both production and consumption plummeted sharply to less than one lakh tonnes during April 2020 from a pre-covid level of above six lakh tonnes.

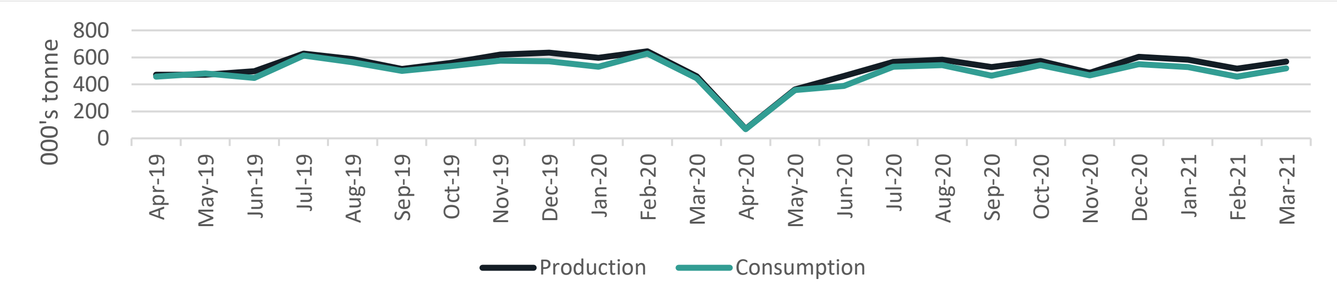


Exhibit 6: Production and consumption trends over the past 2 years (Source: CMIE)

However, Q2FY21 witnessed impact of easing of lockdown restrictions which helped the industry to gain some traction. The industry witnessed a V-shaped recovery with an uptick in demand backed by improved government focus on projects like increasing the share of gas in the energy mix, city gas distribution network, domestic water segment, irrigation projects, allocation in 'Nal se Jal' scheme along with spending on infrastructure projects, affordable housing, etc, which is evident by 16.61% increase in the steel tube and pipe consumption in March 2021 as compared with March 2020.

With unlocking of the economy and resumption of construction activities, the average sales for steel pipes and tubes companies witnessed a V-shaped recovery post subdued demand in Q1FY21 with a consistent increase in its top line and average capacity utilization of 69.23% in Q4FY21. The government's thrust on infrastructure projects and the revival of the economy led to an increase in overall construction activities which resulted in an increase in the number of new orders received by the steel pipe players. However, there has been a steep increase in the raw material prices which may impact the costs for major projects in oil and gas sector and water segment and result in delays in project implementation unless there is revision in budgetary allocation or input prices moderate, which appears unlikely in the short term.

The below graph shows the movement in prices of raw materials, i.e., HR coils, billets with respect to April 2020 prices:

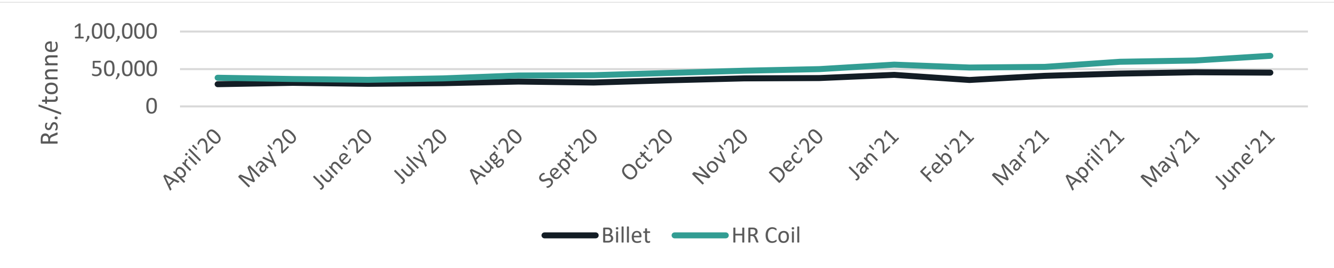


Exhibit 7: Change in prices of raw material (Source: Steel Insights)

Credit perspective

The profit margins of the steel pipe manufacturers have surged over the years. The average operating profit margin of the top 10 players has witnessed a healthy improvement from 9.08% in FY12 to 12.57% in FY20. Going forward, the operating margins of the large players are expected to remain healthy on the back of strong sales realization due to elevated steel prices assuming they will be able to pass on the increase in raw materials costs amid consolidation in the industry and steady demand prospects. During FY13-FY15, the steel and pipe manufacturers undertook a major debt-funded capex to build additional capacities during the oil price boom in 2014. However, going forward, strong deleveraging is expected from major steel pipe players despite the incremental capex. With continuous deleveraging by the steel pipe and tube players and strong profitability in FY21, the industry witnessed an improvement in total debt to equity and interest coverage indicators which is expected to sustain amid continued deleveraging.

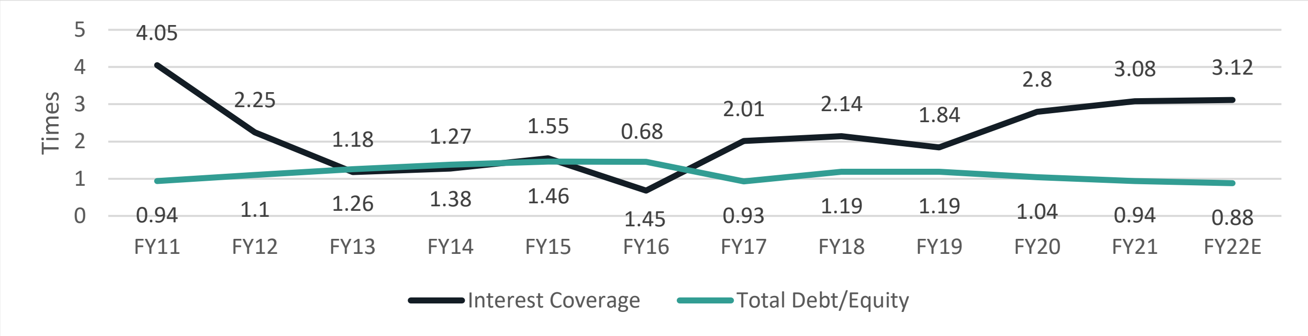


Exhibit 8: Interest coverage and total debt/equity ratio of steel pipe and tube industry (Source: CMIE)

Outlook

Steel consumption and demand for steel tubes and pipes are expected to improve in FY22 with higher levels of economic activities amid optimism that the vaccination program would facilitate normalization and stimulate economic recovery. There is a diverse requirement for steel pipes and tubes across several industries including, but not limited to, oil and gas, petrochemicals, power and energy, construction, water supply, and sanitation, etc. The government's thrust to improve infrastructure is expected to augur well for industry players. India is expected to become a preferred location for global manufacturing in the medium and long term led by initiatives such as Make in India, vocal for local, performance-linked incentives schemes and China plus one strategy being adopted by consumption-driven economies across the globe. The global steel pipe and tubes market is valued at USD 90 billion and is projected to grow at a CAGR of 4% in the next three years to which the domestic market will contribute to around 9%-10% of the global consumption. The demand will largely be driven by water transportation, oil and gas, firefighting, construction, and infrastructure segments, among others. The decreasing share of unorganized and small players and increasing dominance of larger players is expected to result in better pricing power and margins for the larger players especially in ERW segment which has been the most fragmented segment historically, while other segments such as SAW, ductile and seamless pipes segments are traditionally dominated by few large players.

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