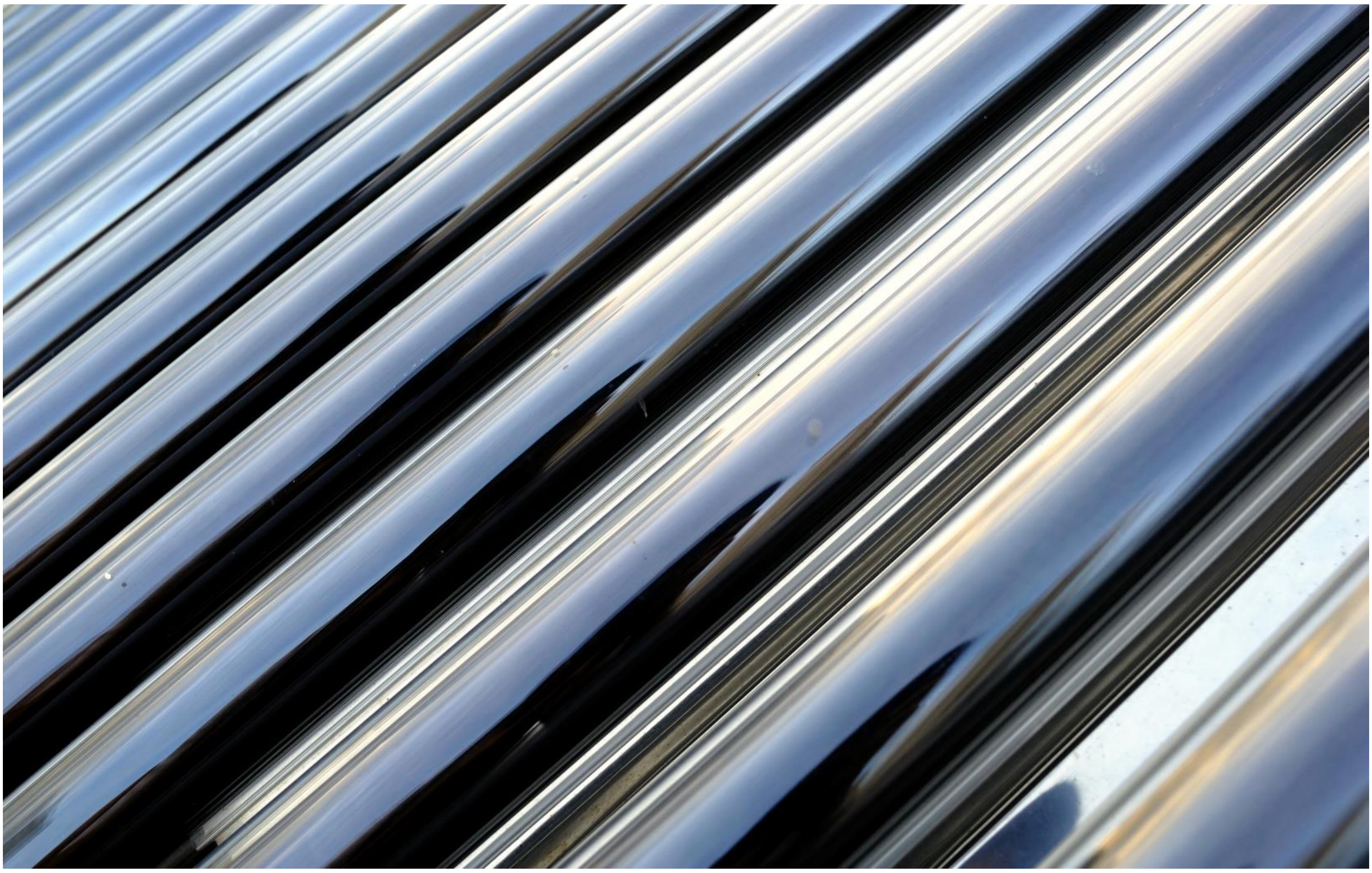
# The good augury for steel pipes

Healthy demand growth, resilient margins to support credit profiles despite volatility in steel prices



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# Contents

# Executive summary

Credit profiles of steel pipe makers will benefit from healthy demand outlook, resilient margins and moderate capex intensity over the medium term.

CRISIL has analysed the sector by categorising the steel pipe industry into two segments – first, electric resistance welded (ERW), and second, submerged arc welded (SAW) and seamless, together referred to as S&S.

Demand growth for steel pipes overall is expected to accelerate to 7-8% over the next five fiscals, compared with 4.5% in the last five. Growth would be higher for ERW at 8-10% as against 5-6% for S&S.

Demand drivers for ERW pipes include higher investments in water supply and sanitation, irrigation, and increased usage of structural pipes in infrastructure projects and other newer applications. Organised ERW pipe makers will continue to benefit from formalisation of the economy post implementation of the Goods and Services Tax (GST).

For S&S pipes, on the other hand, the main growth driver is the oil and gas sector.

The implementation of recently awarded city gas distribution (CGD) licences will be a big boost for both ERW and S&S segments. CGD orders will require at least 10,000-15,000 km per annum of pipes through fiscal 2029, entailing an opportunity of over Rs 5,000 crore per annum over 10 years.

Steel prices are inherently volatilite, which leads to high variability in the operating profitability of steel producers. However, steel pipe manufacturers have exhibited higher resilience as their business model is different from steel producers. Generally, steel pipe makers work on conversion margins, which insulates them from price risk to a large extent. However, any sharp change in steel prices could expose pipe makers and will result in inventory losses as seen in Q3 of fiscal 2019 for some ERW manufacturers.

Most of the pipe makers have completed capital expenditure programmes in fiscal 2019 and have enough headroom in capacity utilisation.

In the ERW segment, the utilisation level is expected to be 63% for fiscal 2019, compared with 59% in fiscal 2018. We believe the next cycle of capex will start only when the exisiting capacities reach utilisation levels of 80-90%, which may take two more years.

For S&S, there is scope of capex of Rs 600-800 crore in fiscal 2020 for balancing requirements and in value-added segments. Despite the capex, utilisation levels are expected to increase to around 50% in fiscal 2020, compared with 46% in fiscal 2019.

Operating performance of steel pipe players will remain susceptible to any slowdown in end-user industries. For ERW players, any sharp movement in hot rolled (HR) coil prices will also be a key monitorable.

# Steel pipes industry at a glance

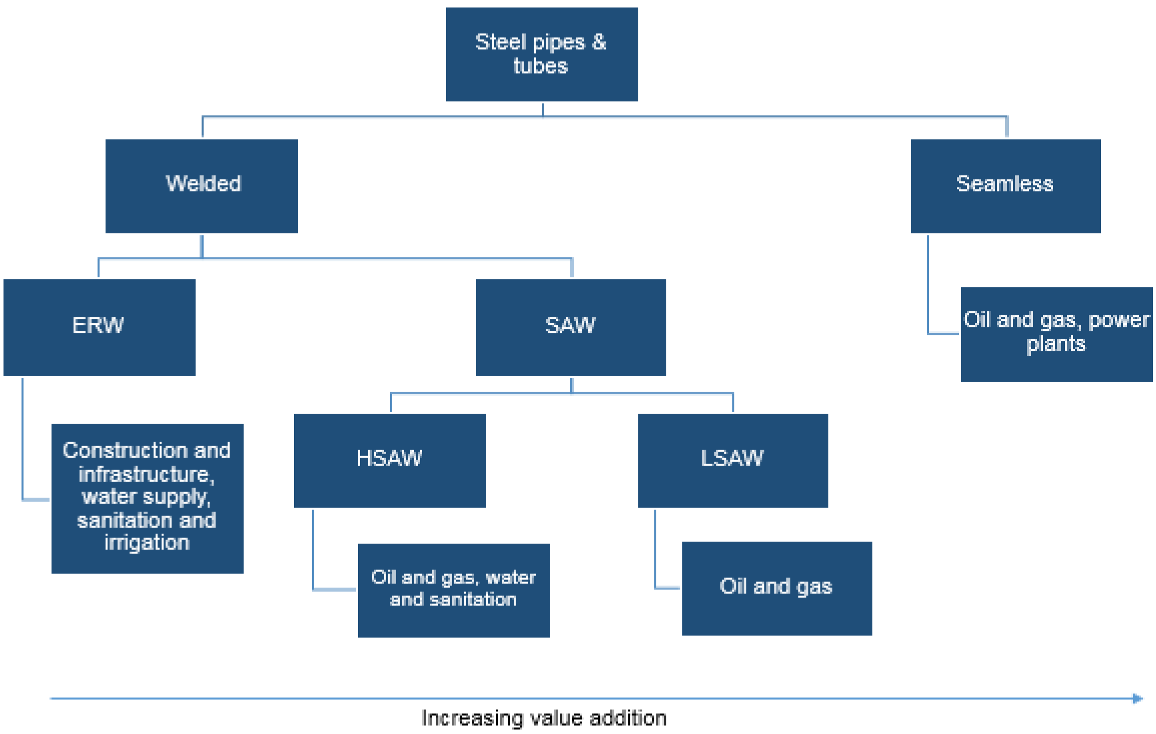
India's steel production is expected to cross 100 million tonne (MT) in fiscal 2020, up 6% on-year. Almost all of this would be consumed in the country.

Steel pipes contribute around 8% to India's steel consumption.

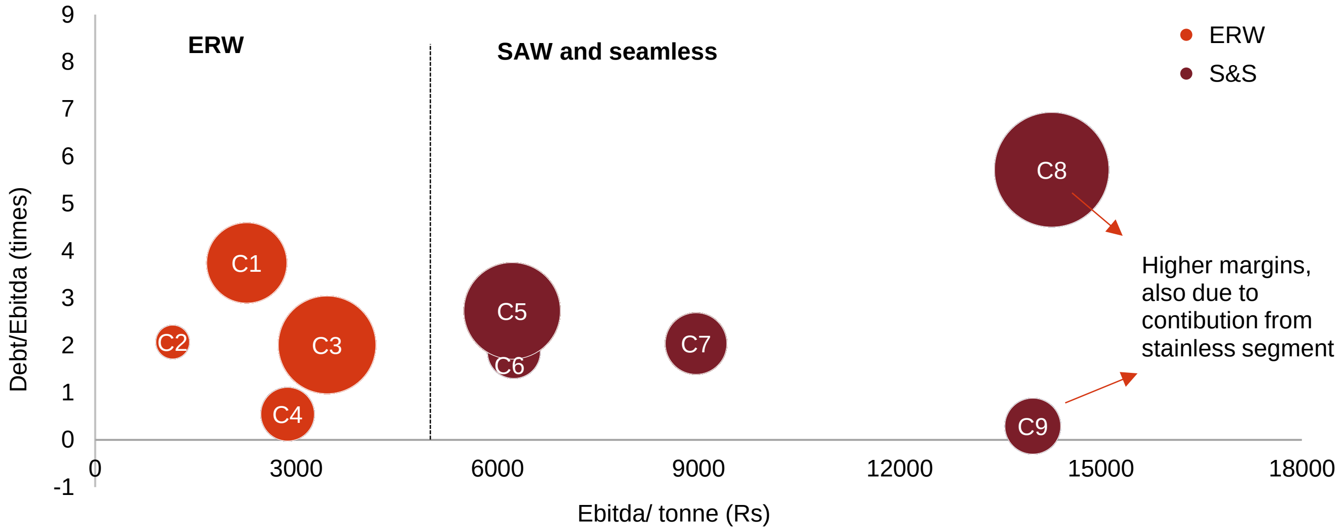
The Rs 50,000 crore steel pipes industry is split equally between the ERW and S&S segments in value terms. In volume terms, the domestic market is split 70:30 between the two segments.

CRISIL rates around 50% of the steel pipes industry by value.

**Structure and application of steel pipes and tubes industry**



**Ebitda/tonne and leverage across pipe segments/players**

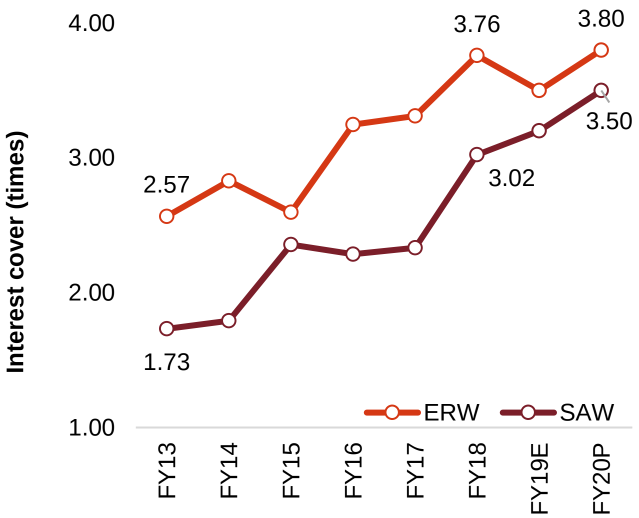



*Size of the bubble represents revenue of various steel pipe players; Source: CRISIL analysis*

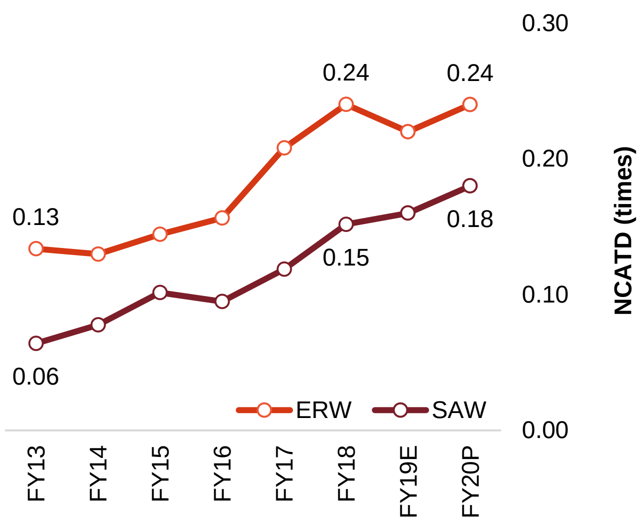
# Steady improvement in credit profiles of both segments

Debt protection metrics such as interest coverage and net cash accruals to total debt (NCATD) of steel pipe players are expected to improved over the medium term.

**Interest cover on uptrend…**




**…so is net cash accrual to debt**




*Source: CRISIL analysis*

Operating performance for ERW players is expected to improve with increased demand from infrastructure segment, and low capex intensity. Although ERW players logged higher debt levels in fiscal 2019, driven by higher working capital intensity, credit profile is expected to remain unaffected, driven by healthy demand and ability to pass on the price increase – albeit with a slight lag.

The operating performance of S&S players was impacted in fiscals 2016 and 2017 as a result of increased competition from Chinese players. However, the companies were still able to manage their financial risk profiles, by limiting capex and taking up lower value added jobs such as coating.

In fiscal 2018, competition from Chinese players subsided due to anti-dumping measures from the government, allowing the credit profile of the S&S players to benefit from healthy order inflow. The improvement in order book to sales ratio for domestic players mirrors improvement in debt protection metrics *(see chart 'Order book position of S&S pipe players' on Page 12)*.

# Demand for steel pipes to log CAGR of 7-8%

Domestic demand for steel pipes has logged a steady 4.5% compound annual growth rate (CAGR) in the past five years. In the next five years, this is expected to improve to 7-8% (higher for ERW vis-à-vis S&S), driven by investment in water supply and sanitation projects, irrigation, CGD projects and increased usage of structural pipes in infrastructure projects.

Though steel pipes (specifically ERW) face competition from plastic pipes in water and irrigation segments, however, oil & gas uses steel pipes (both ERW & S&S) exclusively.

## ERW pipes

Domestic demand for ERW pipes has grown at 4-5% annually in the last five years, riding on investments in water supply and sanitation, irrigation, and increased usage of structural pipes in infrastructure projects.

In the next five years, demand is expected to grow 8-10% a year as the spurs continue. Additional fillip is expected from government thrust to agriculture and the rural economy, infrastructure schemes such as Bharatmala Pariyojana, CGD projects, the Pradhan Mantri Awas Yojana target of building 1 crore houses, and newer applications such as solar trackers which are made of hollow section ERW pipes. Growth in automobile sector augurs well, too.

However, demand for ERW pipes faces the threat of substitution from PVC pipes for last-mile conveyance applications, mainly in the water industry. Players with diversification in structural and square pipe segments are better placed to evade this threat.

ERW pipes have traditionally found application in water and sewage, boilers, power and gas transmissions, plumbing, heating, ventilation and air-conditioning, etc. Square ERW pipes (pre-fabricated products such as double/single door frames and window frames), which are widely used for construction, are expected to be the fastest growing segment in steel pipes. ERW pipes are also used for electric conduit pipes, fencing, cabling and ducting, automotive, bus body and green housing structures.

**Formalisation of the economy benefiting the organised sector**

CRISIL believes the domestic ERW pipes market is becoming more quality conscious and there would be some pressure on the unorganised players for compliance with GST. Formalisation of the economy will be credit positive for large players as the share of the unorganised sector is expected to reduce to 40-45% by March 2022 from 50-55% currently.

## SAW and seamless pipes

Order inflow for domestic S&S pipes is expected to gather pace in the next five years, logging 5-6% CAGR, compared with degrowth between fiscals 2014 and 2017. Fiscal 2018 and 2019 saw recovery in demand, with the segment starting to reap the benefit of the anti-dumping duty levied in fiscal 2016.

Domestic demand is seen improving due to increased investments expected in water supply and sanitation, irrigation, urban infrastructure, smart cities, etc, both at the state and central level, helping both S&S players.

However, SAW pipes face a threat of substitution in sewage and sanitation from ductile iron pipes.

Further, the oil and gas sector is the main growth driver for S&S pipes. And investments in the oil sector depend largely on the overall economic scenario and crude oil prices.

**CGD orders to potentially be the game changer**

Oil and gas companies are tendering aggressively for laying new pipelines for transportation, and sizeable investment is anticipated for expansion of cross-country API-standard pipeline. Over 10 rounds of bids for CGD orders for 228 geographical areas are expected to generate an investment of over Rs 1 lakh crore (more than 80% still to be incurred). The CGD orders will require at least 10-15,000 km of pipes through fiscal 2029, entailing an opportunity of over Rs 5,000 crore per annum over 10 years for steel pipes (both ERW and S&S segments).

In order to increase domestic output and cut imports, the government has offered 23 more oil and gas and CBM blocks, covering over 31,000 sq km, for bidding in the third round of Open Acreage Licensing Policy. So far, more than 1,20,000 sq km has already been made available for exploration under the three rounds.

# Profitability to rebound for ERW players, stay healthy for S&S players

In fiscal 2019, profitability of ERW players is expected to have got impacted by 100-150 bps due to inventory loss in the third quarter as steel prices fell sharply. Some of the ERW pipe players had stocked up on raw material in the second quarter to avail bulk discounts.

Operating margins of S&S players were largely unaffected due to volatility in raw material prices, given back-to-back pricing mechanisms followed by the industry.

## ERW pipes

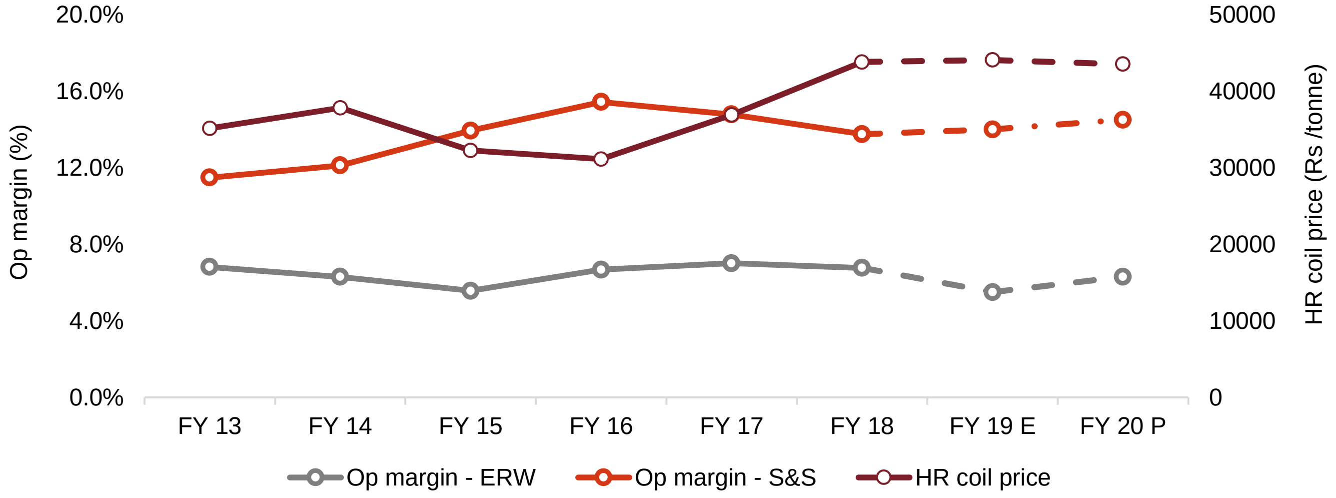
Any sharp and sudden fall in raw material prices leads to inventory loss for ERW players as raw material cost accounts for ~80% of their total revenue.

For instance, in the third quarter of fiscal 2019, an 8-10% fall in prices of HR coils led to the majority of ERW players booking inventory losses. A similar impact was seen in the first quarter of fiscal 2018 when margins were impacted by 200 bps.

Fiscal 2019 saw the highest steel prices in around seven years, with peak HR coil prices at Rs 46,700/tonne in October 2018. Steel prices averaged Rs 44,500/tonne for the year, compared with Rs 39,000/tonne the previous fiscal.

Interestingly, ERW pipe makers appear to have an inverse correlation with steel prices. This is because changes in prices of raw materials are passed on with a bit of lag.

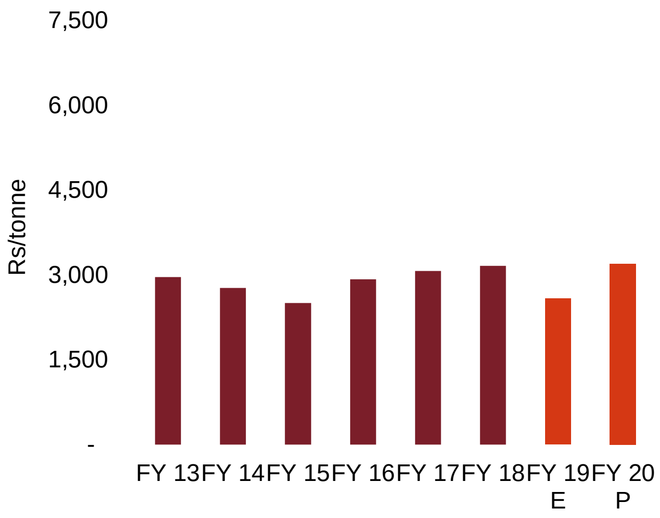
**Movement in operating margins vis-à-vis HR coil prices**



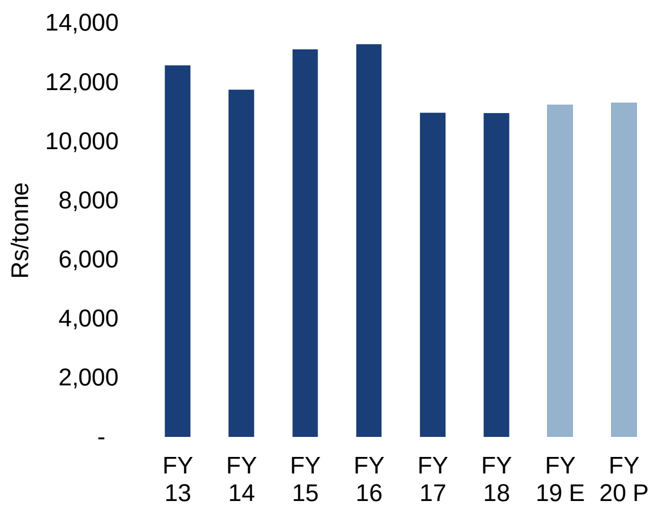

*Source: CRISIL analysis; data set for top 9 players, CRISIL Research*

However, the variation in margins is somewhat optical as in terms of earnings before interest, tax, depreciation and amortisation (Ebitda)/tonne, there is relatively higher stability in the margins.

**Ebitda/tonne for ERW**




**Ebitda/tonne for S&S**

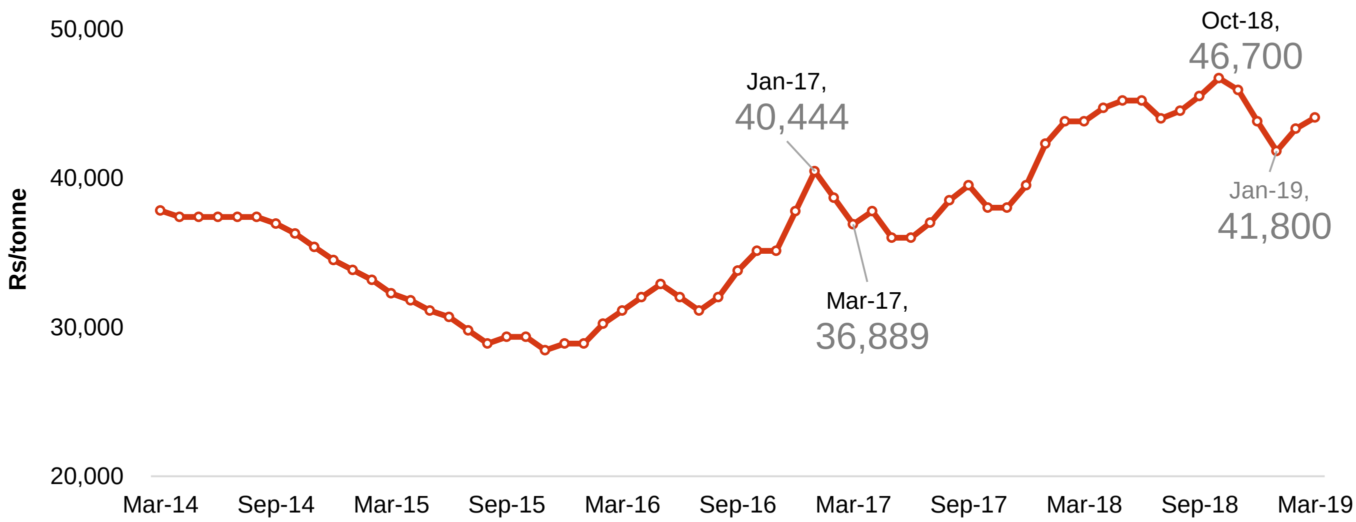



*Source: CRISIL analysis; data set for top 9 players*

The ERW pipe segment's operating margins are expected to have been impacted by around 100-150 bps in fiscal 2019 due to increased volatility in steel prices. In fiscal 2020, operating margins are expected to rebound as the prices of HR coil are expected to remain stable at Rs 42,000-43,500/tonne.

Intense competition in the ERW segment, coupled with low value addition, restricts the operating margin to 4-6%. However, greater thrust on value added products in galvanised iron (GI) and pre-galvanised (GP) pipes is expected to support margins in the medium term.

**HR coil prices have corrected sharply due to excess global supply, driven by China**




*Source: CRISIL Research*

## SAW and seamless

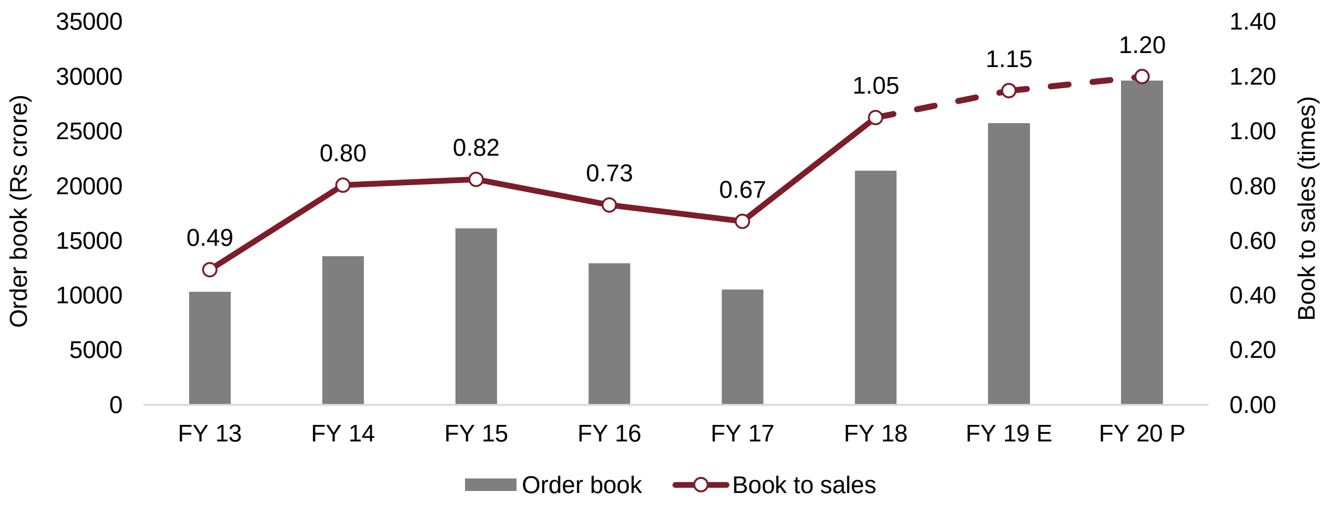
Operating margins in S&S pipes are higher, at 10-15%, depending on the complexity.

Despite volatility in raw material prices, S&S players have been largely unscathed as they typically follow back-to-back pricing mechanisms. However, margins remain susceptible to competitive intensity in order booking.

Given healthy order books and increasing utilisation, margins are expected to remain healthy going forward, too.

The order book to sales ratio of domestic S&S players has improved to over 1 time since fiscal 2018.

**Order book of S&S pipe players seen swelling**




*Source: CRISIL analysis*

The trend is expected to sustain in the near term with the primary spur being investments in the oil and gas sector. The decline in margins for S&S players in fiscal 2017 was due to heightened competitiveness from Chinese players. In order to protect the domestic industry, the government in December 2016 extended the provisional anti-dumping duty levied in May 2016 on seamless pipes (355 mm and lower diameter) from China by five years. The duty is expected to keep Chinese imports in check.

# Capex cycle done, utilisation uptrend to continue this fiscal

## ERW pipes

Utilisation in the ERW segment is expected to improve to 63% for fiscal 2019, from 59% in fiscal 2018.

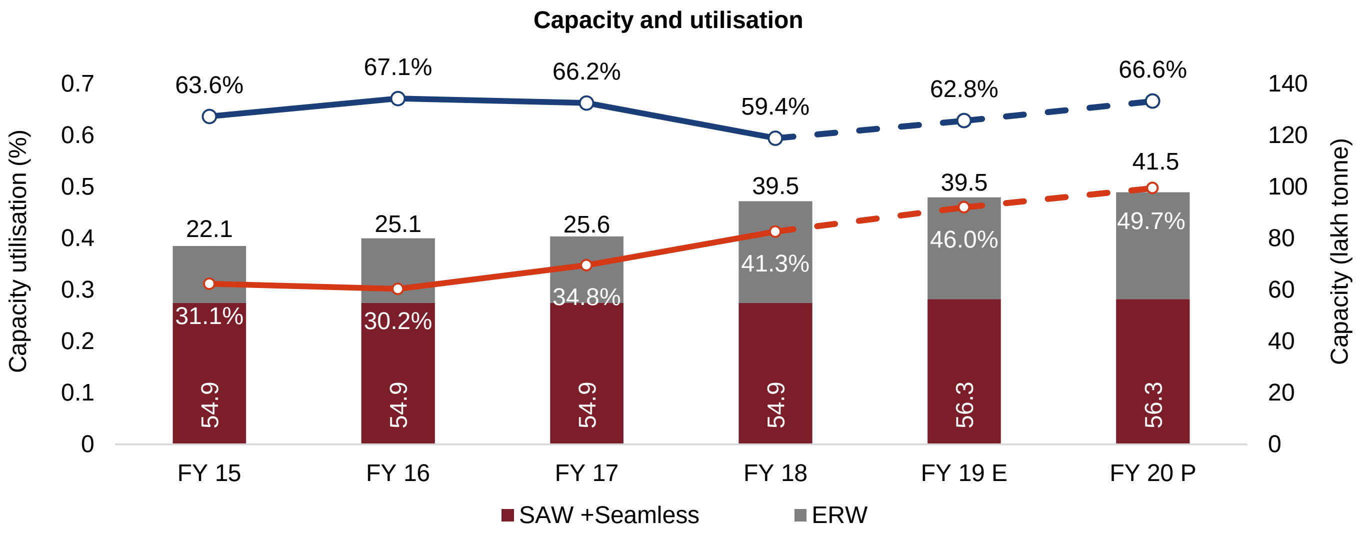
Most of the major players in the segment had completed capacity expansion in fiscal 2019 and do not have major plans of further expansion this fiscal, or till utilisation reaches 80-90%. However, fiscal 2021 could see a fresh capex cycle.

Meanwhile, debt has increased due to increased working capital requirements, given higher inventory needs. However, this is expected to correct in the first half of the current fiscal with normalisation of inventory levels.

## SAW and seamless pipes

CRISIL expects capex of Rs 600-800 crore in SAW and seamless pipes in fiscal 2020. This would be mostly for balancing requirements and in value added segments. Major players are investing in segments such as colour-coated lines for improved realisations and margins.

### Utilisation levels headed north




*Source: CRISIL analysis; data set for top 9 players*

# Annexure

## List of steel pipe companies rated by CRISIL

| Company | Rating |
|---|---|
| Ratnamani Metals And Tubes Ltd | CRISIL AA/Stable/CRISIL A1+ |
| Welspun Corp Ltd | CRISIL AA-/Stable/CRISIL A1+ |
| APL Apollo Tubes Ltd | CRISIL AA-/Stable/CRISIL A1+ |
| Apollo Metalex Pvt Ltd | CRISIL AA-/Stable/CRISIL A1+ |
| Shri Lakshmi Metal Udyog Pvt Ltd | CRISIL AA-/Stable/CRISIL A1+ |
| Jindal Pipes Ltd | CRISIL A+/Stable/CRISIL A1+ |
| Jindal Industries Pvt Ltd | CRISIL A/Stable/CRISIL A1 |
| Man Industries India Ltd | CRISIL A-/ Stable/ CRISIL A2+ |
| Hi-Tech Pipes Limited | CRISIL BBB+/Positive/CRISIL A2 |
| Maxim Tubes Company Pvt Ltd | CRISIL BBB-/Stable/CRISIL A3 |
| Shree Tube Manufacturing Company Pvt Ltd | CRISIL BBB-/Stable/CRISIL A3 |
| Advance Steel Tubes Ltd | CRISIL BBB-/Negative/CRISIL A3 |
| Ultra Pipes | CRISIL BB+/ Stable/ CRISIL A4+ |
| Lalit Pipes and Pipes Ltd | CRISIL BB+/ Stable/ CRISIL A4+ |
| Kapilansh Dhatu Udyog Pvt Ltd | CRISIL BB/Stable/CRISIL A4+ |
| Roll Tubes Ltd | CRISIL BB/Stable/CRISIL A4+ |
| SKS Spiral Pipes | CRISIL BB/Stable/CRISIL A4+ |
| JRB Strips Pvt Ltd | CRISIL BB/Stable |
| Avon Tubetech Pvt Ltd | CRISIL BB-/Stable/CRISIL A4+ |
| Primesteel Manufacture Pvt Ltd | CRISIL BB-/Stable |
| Solcen Infra Pvt Ltd | CRISIL BB-/Stable/CRISIL A4+ |
| Suman Steel Industries | CRISIL BB-/Stable |
| Esco Pipes Pvt Ltd | CRISIL B+/Stable |
| Premier Pipes Ltd | CRISIL B+/Stable/CRISIL A4 |
| S Plus Tube Tech | CRISIL B-/Stable/CRISIL A4 |
| Samrat Ferro Alloys Pvt Ltd | CRISIL B-/Stable |
| Sri Guru Ramakrishna Tubes | CRISIL B-/Stable/CRISIL A4 |

**The above ratings are as on July 19th, 2019*

**The above list does not include 'Issuer Not co-operating companies'*

## About CRISIL Ltd

CRISIL is a leading, agile and innovative global analytics company driven by its mission of making markets function better.

It is India's foremost provider of ratings, data, research, analytics and solutions, with a strong track record of growth, culture of innovation and global footprint.

It has delivered independent opinions, actionable insights, and efficient solutions to over 100,000 customers.

It is majority owned by S&P Global Inc, a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide.

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