XYZ Steel

Credit Risk Assessment Report

Sample report

Facts

- Name: XYZ Steel Limited
- Sector: Steel
- Revenue last year: Rs 73,326 Cr
- Market capitalization: 45,903 Cr
- Listing status: Listed
- Total debt: Rs. 51,533 Cr
- Relevant age: 35 years

Summary of credit risk

Score in credit risk:	9.2/10
Probability of default in next 1 year	0.8%
Fair yield for 1 year unsecured debt	7.5% p.a.
Rank within sector	1/12
Rank in size cohort	28/120
Conventional credit rating (latest)	AA+
Degree of overrating	Mildly under-rated

Sector in a nutshell

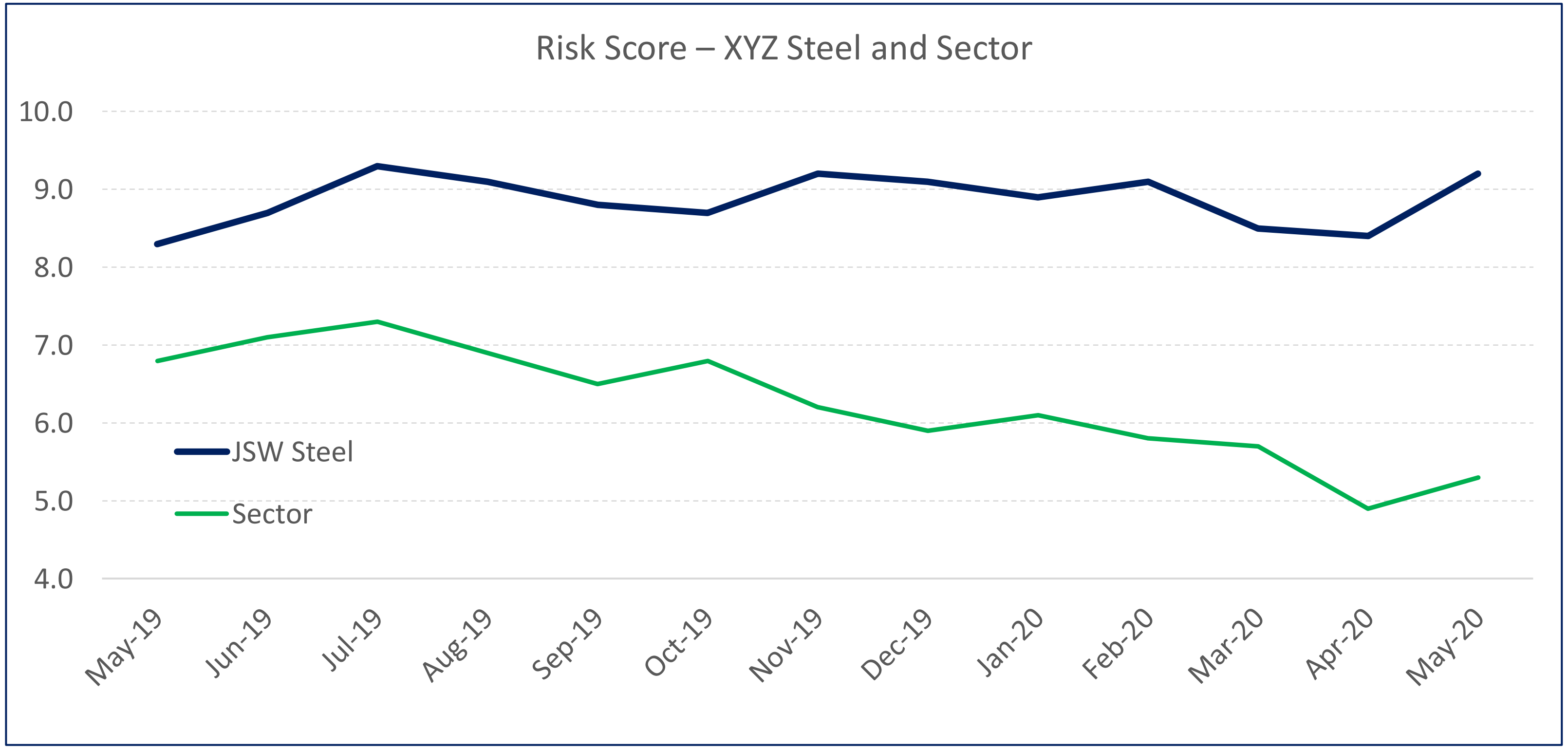
Current risk score of sector:	5.3 / 10
Risk score of sector 1 year ago:	6.8 / 10
Risk rank of sector amongst all sectors:	28 / 36
Average growth rank of sector:	31 / 36

We use three different approaches to arrive at overall credit risk of a company – machine learning, equity market based and expert systems. These are described in greater detail in the appendix.

	ML models	Equity markets	Expert systems	Combined
Risk score by source	8.7	9.5	7.2	9.2

Variation in risk score of XYZ Steel over past 1 year

Following graph shows the variation in the risk score of Inox Air Products and Industrial Gas Manufacturing Sector over last year. The mapping of risk score to probability of default is summarized in the table on the right.



Risk score	Probability of default
10	0
9	0.2%
8	1.1%
7	2.0%
6	3.6%
5	5.2%
4	7.7%
3	10.9%
2	15.1%
1	25.9%
0	50.0%

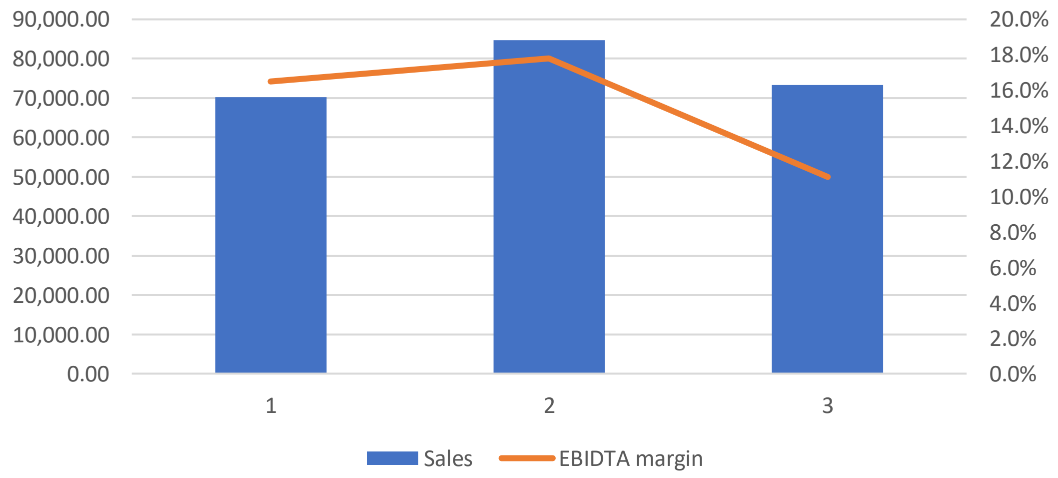
Key parameters of financial performance

Parameter	FY2020	FY2019	FY2018	Sector rank
Sales growth	-13.4%	19.8%	28.5%	5/12
EBIDTA margin	11.1%	17.8%	16.5%	3/12
PAT margin	5.5%	8.9%	8.6%	4/12
Leverage (debt/equity)	1.5	1.0	1.2	2/12
Working capital/sales	0.25	0.28	0.22	2/12
Return on equity	11%	22%	22%	6/12
Sales to total assets	0.56	0.73	0.76	6/12
Cash flow from operations/EBIDTA	0.7	0.9	0.8	5/12

Observations on the financial performance

- Falling growth
- Moderate and falling profitability
- Operationally efficient
- Above average in returns on capital
- Moderate leverage
- Fairly comfortable cashflows

Sales and EBIDTA margin over last 3 years



Comparison with sector on key parameters

We use various indicators to assess a company's financial health. These can be summarized across 6 major themes a... Higher values indicate better performance.

Area	Company score	Sector average
Profitability	57%	53%
Operating efficiency	55%	57%
Growth	27%	29%
Indebtedness	57%	56%
Capital markets	85%	68%
Capital efficiency	67%	50%

Areas of strength and weakness

We have listed below company-specific factors that are areas of strength and areas of concern in the context of credit risk of the company. The column on "Degree" indicates if the strength or concern is significant, moderate or mild.

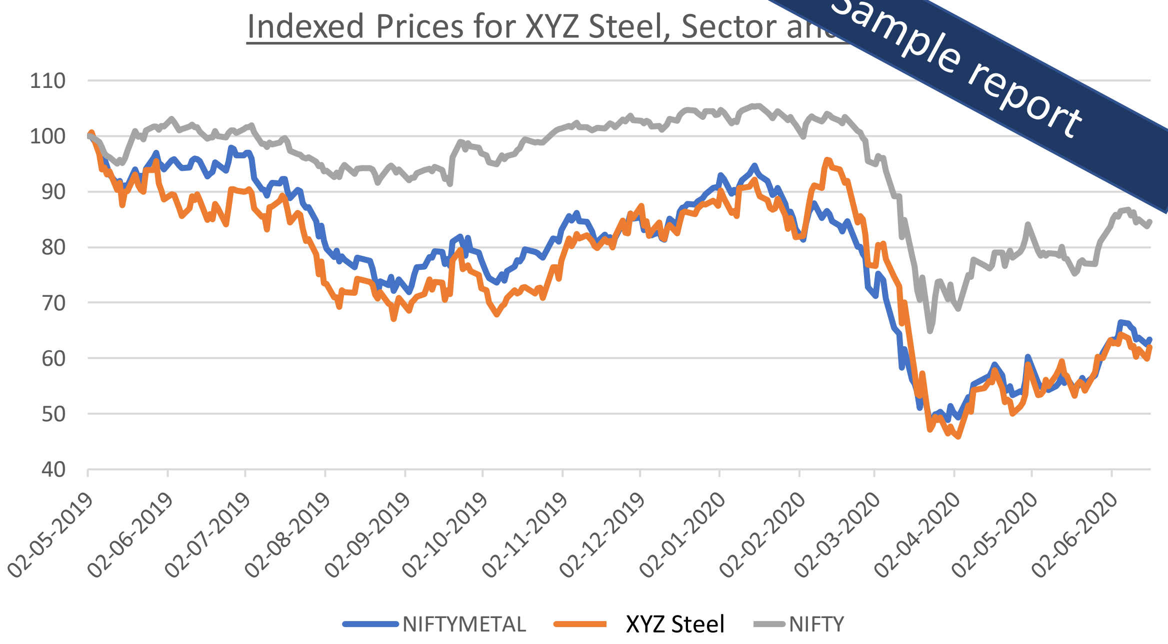
Area of strength	Degree
Capital market performance	Moderate
Profitability	Mild
Cashflow	Mild

Area of Concern	Degree
Growth	Major
Tax to PBT	Moderate
Leverage	Moderate

Insights from equity price performance of the company's stock

The below tables lists the performance of the stock of XYZ Steel – including price, valuation ratios and yield.

Parameter	Value	Sector rank
One year returns	-26%	7/12
Volatility of stock returns / index volatility	1.3	4/12
Price to book ratio	1.2	3/12
Dividend yield	1.1%	5/12
PEG ratio	N/A	N/A



- Stock of XYZ Steel has performed at par with its sector over last 1 year
- XYZ Steel has a moderate price to book ratio vis-à-vis its peers
- The stock price of XYZ Steel is moderately volatile

Probability of default from stock price performance

We use value and volatility of stock price of a company to infer its credit risk using our structural credit risk model. This approach enables us to use the valuable insights of equity owners of the company in assessing its credit risk.

Probability of default (equity markets)	0.5%

Credit Risk score (equity markets)	9.2/10

Distance to default (equity markets)	3.4

Financial vulnerability from refinance risk and margin volatility

A company with low volatility in its EBIDTA margins and high interest coverage ratio is unlikely to default on its interest payments. Conversely, high margin volatility and low interest coverage ratio may lead to cashflows from operations falling short of paying interest.
Long term debt of a company is expected to be paid back from cashflows from operations. However, a company may be forced to refinance its long term debt partially if its operational cashflows aren’t sufficient. This situation makes a company’s ability to get funding an important determinant of its continued solvency.
The below table describes our analysis of XYZ Steel’s vulnerability on these counts.

Parameter	Value
Volatility of EBIDTA margin	12%
Probability of EBIDTA falling below interest payment due	1.5%
Need for refinance	Moderate
Ability to repay debt from cash on balance sheet	Low
Ability to get refinance	High
Refinance risk	Moderate
Expert system risk score	7.2/10

Observations:

- The company has sufficient cover for meeting its interest obligations.
- However, it does require moderate amount of refinancing of its debt
- It has some cash on its balance sheet to use for debt repayment, if required
- Its ability to get refinance is quite good
- It is unlikely to need refinance for long term debt but is likely to get it easily enough should the need arise