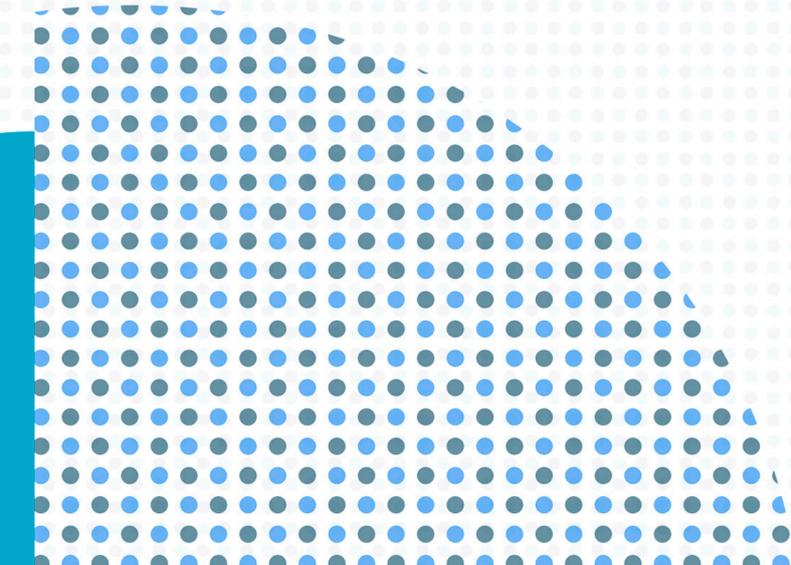


Defaults

in the steel industry



Analysis of defaults in the steel industry 2015-2019

The specifics of the steel industry cause high default risks.

About every 5 years, the steel industry experiences a sharp slump in financial results due to cyclical recessions in the market. At the same time, the industry is capital-intensive and needs to take a risk and to raise large amounts of money in the debt market to carry out modernization projects or simply maintain the existing capacities. Those companies, which at the time of cyclical crises are in the middle of investment cycle or have a high debt burden, often become insolvent.

The debt burden in the industry is critically high.

According to OECD, EV/EBITDA in the industry was 4.5 in 2016 and averaged 4.0 in 2012–2016. During a market slowdown, this indicator increases to 5–6, thus signaling a high likelihood of debt

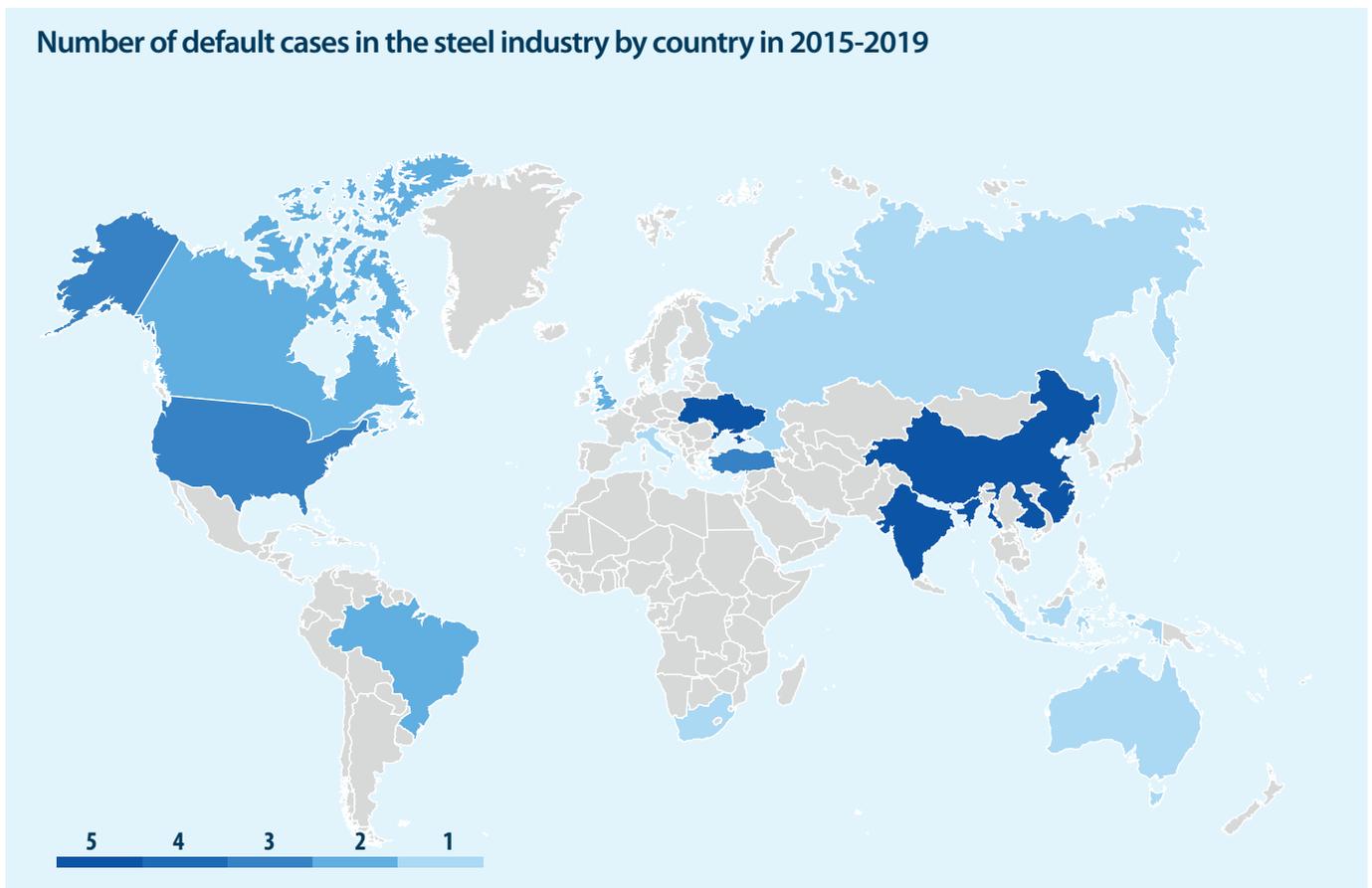
service problems. And since it is an average value, the indicator is much higher for some companies.

Access to capital is particularly important in these circumstances.

Companies from countries with developed financial markets attract long-term debt. In this way, they reduce the risk that a period of debt repayment will be unfavorable. Companies from developed economies also have more chances to refinance debt.

This thesis is confirmed by the almost complete absence of companies from developed economies on the bankruptcy list (with few exceptions usually associated with government interventions). For instance, British Steel was strongly influenced by Brexit. Some cases are linked to a ban imposed on companies whose operations cause significant environmental damage, such as Ilva, ERP Iron Ore. Funding costs also make a difference: from 1–2% in

Number of default cases in the steel industry by country in 2015-2019



the EU (Thyssenkrupp-2023 — 1.875%) to 10.25% in Ukraine (Interpipe-2024).

Companies from emerging economies are more vulnerable to defaults.

This typically happens after cyclical recessions in the market:

- India — 5 defaults in 2017,
- Turkey — 3 defaults in 2019,
- China — 5 defaults in 2016–2018,
- Brazil — 2 defaults in 2016–2017,
- Ukraine — 5 defaults in 2009–2015.

Defaults are often caused by bad M&A deals

where the buyer takes on a debt load, whereas the results do not meet expectations. A striking example is Mechel, Russia's vertically integrated mining and metals company that closed a number of major deals before and after the 2008–2009 crisis when it faced problems. In 2011, Mechel bought Donetsk Electrometallurgical Plant for \$537 million. Yet back in 2012 it made unsuccessful attempts to sell it.

The situation is aggravated by excess capacity in the industry.

Although the situation improved and the industry's capacity utilization rate increased to 81.6% by 2019, there are 420 million tons of unutilized capacities in the market. This creates a constant pressure of the supply even when the demand is high. Hence, manufacturers' margin is insufficient for substantial investment and reduction of the debt burden. An average EBITDA margin in the industry over the past few years is 10%.

The importance of the process of forecasting

prices and market slowdowns is increasing. For instance, iron ore prices fell by 50% from January to December 2014 and by another 20% by September 2015. Rebar prices in 2019 dropped by 15% in 4 months, from July to October. The current situation with coronavirus epidemic also increases the uncertainty and threatens a sharp fall in both China's economy and commodity prices. Given poor predictability of the situation, companies are very cautious about investment projects and M&A transactions. Their important task is to ensure sustainability and right balance between the development pace and mitigation of risks.

10% Average EBITDA margin in the steel industry

Poor development of hedging tools in the steel industry

adversely affects the ability of companies to withstand crises. The relevance of these instruments is growing with the increasing volatility in the market. The futures market (ore, rebar) currently operates only in China. According to the World Steel Dynamics, the 2019 crisis will prompt the development of the steel derivatives market outside China, as the need to hedge price risk is greater than ever.

Almost all major players in the steel market in Ukraine have gone through a technical default procedure.

The reason is the same for all. Companies borrowed large amounts of money, including from foreign sources, to carry out key investment projects:

- ISD invested significant amounts in modernization of Alchevsk Iron and Steel Works and Alchevsk Coke Plant. The declared amount of investment in 2005–2008 was \$3.5 billion. As a result, these plants were the most technologically advanced in Ukraine, and ISD ranked 25th on the list of the world's largest steel-producing companies in 2007.
- Interpipe invested \$700 million in construction of an electric-arc steelmaking plant instead of the open-hearth shop of Nyzhnyodniprovskiy Tube Rolling Plant.
- Metinvest Holding invested \$4.4 billion in 2008–2013 in modernization of metal and mining assets.
- Donetskstal built the most technically advanced processing plant in Europe, and an electric-arc steelmaking plant. Investments in 2010–2013 amounted to around \$1 billion.
- Ferrexpo invested in the increased efficiency of Poltava Mining and built two new mining and processing plants. Capital investment in 2007–2014 amounted to around \$2 billion.

Yet in the periods of crises of 2008–2009 and 2014–2015, companies experienced difficulties in servicing these debts. The conflict in Donbas and the loss of assets dealt a serious blow to the industry. As a result, ISD and Donetskstal virtually ceased to exist.

4,0 Average Net Debt/EBITDA in the steel industry

Default risks will increase in the coming years.

Global trends in the industry cause a situation where companies are forced to build up investment to maintain competitiveness despite ongoing weak activity. This is likely to aggravate the debt situation in the industry, which will increase the risks of new defaults in the coming 3–5 years.

Capital-intensive business in a cyclical industry poses high risks in developing economies. For domestic manufacturers, the situation could change due to:

- Improvement of the investment climate — to increase refinancing opportunities and raise funds for a longer term;
- Sound regulatory policy — to increase predictability and prevent adverse impact on competitiveness;
- Development of the domestic market for metal products — to enhance resilience of the business during crises.

Default cases in the global steel industry

Country	Company	Year	Note
United States	Bayou Steel Group	2019	The bankruptcy procedure was initiated by the Company. The Company suffered from an increase in import tariffs on scrap from China. In 2019, Liberty Steel Group was named preferred buyer for Bayou Steel.
Indonesia	Krakatau Steel	2019	The Company restructured its debt to creditor banks. The reasons for the bankruptcy were an influx of cheap Chinese imports and internal management problems (corruption in procurement).
Republic of South Africa	Robor	2019	Manufacturer of pipes. The Company is on the verge of collapse as a result of a drop in demand in the domestic market of South Africa, influx of Chinese imports and loss of competitiveness following hiked electricity tariffs.
Turkey	Özborsan Pipe	2019	The largest producer of welded pipes in the country. 80% of its products were exported. The Company was ruined by a fall in prices in the global market and a duty imposed by the U.S.
United Kingdom	British Steel	2019	The Company needs money to cover losses. Following EU's decision to suspend UK companies from accessing free carbon permits until Brexit deal is ratified, British Steel asked the UK government for a loan to pay its upcoming EU CO2 emissions bill. The Company was also adversely affected by a drop in domestic demand and the devaluation of the pound. The purchase of British Steel's assets was negotiated by many companies, including Liberty Steel, Erdemir, Evraz, Saarstahl, Jingye Group.
Turkey	ÇEL-MER Çelik Endüstrisi	2018	One of the largest steel producers in the country. The Company faced debt servicing problems following the devaluation of the lira and a decline in demand in Turkey's domestic market.
Canada	Hamilton Spec. Bar	2018	The bankruptcy procedure was initiated by creditors. Closed down in 2018.
China	Kingtec Steel Corporation	2018	The bankruptcy procedure was initiated by the Company. The reasons were the deterioration of business climate (including a slowdown in demand for steel), high expenses for raw materials and transportation of finished products (due to the remote location of the plant), and high debt burden.

Default cases in the global steel industry

Country	Company	Year	Note
United States	ERP Iron Ore	2018	Iron ore manufacturer. The bankruptcy procedure was initiated by the Company. ERP Iron Ore attempted to resume the production of iron ore pellets at plants purchased from bankrupt Magnetation, but the Environmental Protection Agency opposed because of the absence of necessary equipment to control emissions. ERP Iron Ore assets were auctioned off. ERP selected PPL Acquisition Group for Illinois-based assets and Altos Hornos de Mexico for its pellet plant in Minnesota.
China	Xilin Iron & Steel Group Co Ltd	2018	Steel producer. The Company agreed a bankruptcy restructuring plan with creditors.
India	Adhunik Metaliks	2017-2019	The Company was unable to service its \$110 million debt. Liberty House was interested in buying Adhunik Metaliks's assets, but creditors rejected its resolution plan and a liquidation order was passed.
India	Essar Steel	2017	The situation with the Company's solvency was aggravated by the bankruptcy of its American subsidiary, Essar Steel Minnesota. This is a project for the construction of concentrating and pelletizing facilities. The amount of investment is \$2.2 billion. Essar Steel guaranteed the fulfillment of the obligations of its American subsidiary. The bankruptcy procedure was initiated by banks at the direction of India's Centrobank. In 2019, the Company was sold to a consortium of ArcelorMittal and Nippon Steel.
India	Monnet Ispat	2017	The Company ran into problems in 2014 when coal mines attached to the plant were shut down and sanctions imposed following the Supreme Court order. Crashing steel prices on account of Chinese dumping further aggravated its crisis. The bankruptcy procedure was initiated by banks at the direction of India's Centrobank. In 2018, the Company was sold to a consortium of Aion Investments and JSW Steel.
India	Bhushan Steel	2017	The bankruptcy procedure was initiated by banks at the direction of India's Centrobank. In 2018, the Company was sold to Tata Steel.
India	Electrosteel Steels	2017	The bankruptcy procedure was initiated by banks at the direction of India's Centrobank. In 2018, the Company was sold to Vedanta Ltd.
Brazil	Aço Cearense	2017	The Company was in the middle of an investment cycle in 2014 when it was caught by the economic crisis and filed for bankruptcy. Prices collapsed and the Company was unable to repay a debt of around \$400 million. As a result of restructuring in 2018, 50% of the Company's debt was written off.

Default cases in the global steel industry

Country	Company	Year	Note
China	Chongqing Iron and Steel Company	2017	Steel producer. The reason for bankruptcy was excess capacity, low prices for steel, and growing staff expenses. The Company successfully restructured its debt, with the intervention of Baosteel. By the end of the current year, Baosteel might purchase Chongqing Iron and Steel.
Australia	Arium	2016	The bankruptcy procedure was initiated by the Company. Sold to Liberty House Group in 2017.
China	Bohai Steel Group	2016	The reason for bankruptcy was a fall in steel prices to a record minimum in 2015, which made it impossible for the Company to service loans. In January 2019, the court approved a bankruptcy restructuring plan. Under the restructuring plan, Bohai Steel will be broken into 2 parts: steel (17 companies) and non-steel (31 companies). Tangshan Delong Steel will buy some of Bohai's steel-related assets. The implementation of restructuring plan lingered on because of the government's disputes with creditors.
Brazil	MMX Mineracao	2016	The Company produced iron ore. It went bankrupt for the reason of high debt amid a collapse of prices for raw materials in 2014–2015. The Company failed to achieve the expected financial results.
Turkey	Yolbulan Metal	2016	Producer of long products. Filed for voluntary bankruptcy. The Company's debt in 2016 was around \$70 million or 50% of its annual receipts. The reason for bankruptcy was a drop in prices for its products, price volatility, and the appreciation of foreign currencies.
China	Dongbei Special Steel Group	2016	Producer of special steel grades. The bankruptcy procedure was initiated by creditor banks. The Company restructured its debt and continues operation.
Italy	Ilva	2015–2020	In 2015, the Company was declared insolvent due to the inability to service a debt worth EUR 3 billion. The reason is that the Company was suspended as it had been found guilty of significant amounts of harmful emissions and damage to health. The Company was nationalized and then sold to ArcelorMittal. Later, ArcelorMittal announced its intention to withdraw from the deal.
United Kingdom	Teesside Steelworks	2015	Integrated steel company. Changed the owner several times since 1999, suspended operations from time to time, the last time in 2014 due to a decrease in demand for its products. Closed down.
United States	Magnetation LLC	2015	Manufacturer of iron ore pellets. Bankruptcy is associated with the excessively large supply of iron ore, due to which prices fell. Closed down.
Canada	U.S. Steel Canada	2014	Producer of steel. The bankruptcy procedure was initiated by the Company. Sold to Bedrock Industries in 2016.

Default cases in the steel industry of Ukraine and the CIS

Country	Company	Year	Note
Ukraine	Ferrexpo	2015	The Company proposed investors to restructure Eurobonds in two stages in 2015 (\$500 million in February and \$287 million in June). The amount of loans totaled \$1.3 billion in late 2014. Funds were raised to implement projects for the construction of two new mining complexes. The debt burden was not that significant at 2014-end. EV/EBITDA was 1.4 and 2.8 in 2015.
Ukraine	Metinvest Holding	2014–2017	As a result of the conflict in Donbas and a sharp cut in prices for iron ore and metal products, in the autumn of 2014 Metinvest Holding proposed creditors to restructure Eurobonds worth \$500 million. In 2015–2017, a \$2.29 billion debt was restructured. Back in early 2018, Metinvest re-entered the debt market, issued new Eurobonds, refinanced the existing debt, and raised new funds.
Russia	Mechel	2013–2020	The Company faces crisis because of inefficient takeovers and risky financial policy. Debt was restructured several times since 2013, as during the 2014–2015 crisis Mechel was again unable to service obligations. Due to significant loan repayments, capital investment was considerably reduced. In 2018, the Company’s debt amounted to \$9.16 billion, mainly to Russian state-owned banks. Mechel operated with a rather high EBITDA margin of 19% over the first 9 months of 2019. Its EV/EBITDA in 2015 was 11, in 2018 — 5.6, in 2019 — 6.9. In 2019, creditors were sent a request to extend the debt maturity from 2020 to 2024.

Country	Company	Year	Note
Ukraine	ISD	2009–2015	In the wake of the crisis of 2008–2009, the Corporation was unable to service its loan of about \$3.0 billion raised to carry out large investment projects. ISD failed to reach a restructuring agreement with creditors, and paid interest only. In 2010, a controlling stake was sold to a consortium of Russian investors. The loss of assets as a result of the conflict in Donbas and falling prices in global markets in 2014–2015 made the Corporation insolvent.
Ukraine	Interpipe	2009–2019	In 2009, the Company defaulted on bank loans and Eurobonds worth \$200 million because of a negative cash flow and significant investment spending for the construction of an electric-arc steelmaking plant to replace the open-hearth furnaces of Nyzhnyodniprovskiy Tube Rolling Plant. In 2010, Interpipe restructured its Eurobonds. A \$877 million debt to banks was restructured in 2011. In 2013, Interpipe defaulted again. This time the reason was Russia’s refusal to allocate quotas for duty-free imports of seamless pipes. The debt was not restructured until 2019.
Ukraine	Donetskstal	2009–2018	At the time of the global economic crisis, the Company had a large loan portfolio for the implementation of investment projects. The worsening market situation prevented Donetskstal from servicing its debt. In 2010–2011, the debt was restructured. In 2017, the Group lost Donetsk-based assets and could not pay off the debt. In 2018, Metinvest Holding purchased a stake in the Company.

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