

# Financial Health of Steel Industry 2020

Financial analysis of public steelmaking companies

August 2020



## INTRODUCTION

The global steel industry went through a challenging period in 2019. This document will show how companies survived it and how they adapted to the expected long-term stagnation in steel demand.

GMK Center seeks to draw the attention of all stakeholders to the specifics of the steel industry: its cyclical nature, excess capacities, low profitability, high capital intensity and high debt burden.

This document is a logical continuation of GMK Center's work on exploring the financial standing of the steel industry, which began with the studies *Defaults in the steel industry 2015–2019* and *M&A in the steel industry 2015–2020*.

This document is an attempt to assess the 'financial health' of the industry, lessons learnt by companies from the previous crisis, whether they are prepared for a new economic crisis, as well as determine leaders and followers, answer the question of whether a wave of bankruptcies or mergers and acquisitions (M&A) is to be expected, and to what extent the industry is ready for new, global trend-setting challenges.

This document studies the situation of the global steel industry ahead of the economic crisis as a result of the COVID-19 pandemic. A model of the industry's response to the 2009 and 2015 crises will provide insight into what to expect from 2020.

The document also gives a GMK Center's forecast of financial results of the industry for 2020.

GMK Center will continue to keep its finger on the pulse of the financial standing of steelmaking companies and to update its relevant analytical products.



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## RESEARCH METHODOLOGY

This document analyzes financial results of 84 public steelmaking companies. The following financial records of companies from open sources were used as data sources: Balance Sheet, Income Statement, Statement of Cash Flows.

This document provides analysis of annual financial records for 2005–2019. Financial results of companies in which the reporting period does not coincide with a calendar year have been adjusted to a calendar year.

In analysis of profitability indicators, the terms of the ‘best’ and ‘worst’ companies are used, which are defined as average values of the third quartile in terms of profitability for the ‘best’ companies, and the first quartile for the ‘worst’ companies.

Analysis of indicators by company size was based on the division of companies into ‘large’ and ‘small’. Large companies mean companies in terms of sales in the third quartile, while small companies mean companies in the first quartile respectively. We believe that in the analysis of the dynamics of indicators, the dynamics of large companies reflects the dynamics of the entire industry with a high degree of accuracy.

Average values of indicators in the document mean the weighted average. Average values by country were calculated based on the division by incorporation of parent companies (head offices).

Indicators consisting of indicators of the Balance Sheet and Income Statement or Statement of Cash Flows were calculated based on average indicators of the Balance Sheet for the year and represent the average at the beginning and end of the year.

### **Some definitions:**

EBITDA means earnings before interest, taxes, depreciation and amortization. EBITDA more accurately than all other financial results shows a company’s cash inflow.

EBITDA margin means a measure of a company’s operating profit that allows for a comparison of one company’s real performance to others in its industry and in the dynamics. It is calculated as EBITDA divided by total revenue.

CAPEX mean capital expenditures.

Net debt means the amount of a company’s short-term and long-term interest bearing liabilities minus cash. It can be negative if a company has more cash than liabilities.

Net debt to EBITDA characterizes a company’s debt burden and shows how many years it would take for a company to pay back its financial liabilities. Its standard value does not exceed 3.0.

Free cash flow (FCF) means a difference between all cash receipts and all expenses, including for operating activities, investment, servicing, repayment or raising debt.

Operating cash flow (CFO) means cash flow from a company’s operating activities. It is calculated as a difference between all cash receipts and all expenses for a company’s operating activities. Unlike EBITDA, CFO accounts for changes in operating assets.

## KEY IDEAS OF THE RESEARCH













In 2016–2019, the ‘financial health’ of the industry somewhat improved. Companies cut investment programs, and the upward cycle profitability helped reduce debt burden. Yet 2019 was marked by a deterioration in all key indicators.

### Industry dynamics in 2019

Sales	-6%	EBITDA	-26%	
Average EBITDA margin		9.4%		
CAPEX		+31%	FCF	-27%
Net Debt	+1.1%	Average Net Debt/EBITDA		3.0

-  In 2019, revenues of the steel industry declined by 6% on average. The downward phase of the economic cycle began. Steel prices declined by 13–18% depending on a product type. A decline in revenues in China was not that strong as in other regions due to an 8.5% growth in steel consumption in the Chinese domestic market in 2019. In other regions, demand for steel products fell.
-  As exemplified by the largest companies, revenues of the steel industry in constant prices in the past 5 years decreased by 15.5% despite an increase in steel consumption in that period. The reason is excess capacities in the industry creating excess supply and thus putting pressure on prices.
-  The industry’s EBITDA in 2019 dropped much more stronger than revenues, by 26%, since prices for iron ore, the main raw material, increased along with a fall in prices for finished products. **Despite the difficult situation, it cannot be said that the year was a crisis. This can be seen by a 3.6% share of loss-making companies**, which is lower than the average value of 5.8% for the past decade.

## KEY IDEAS OF THE RESEARCH

-  In the past 5 years, EBITDA in constant prices was 13% down from the previous 5 years. **EBITDA has been declining for long despite a growth in global steel consumption. Companies' decreasing profit margin means worsening investment opportunities. This poses a serious challenge, as the industry has increased investment needs for decarbonization and digitalization.**
-  **Average EBITDA margin in 2019 by major steel producing countries was in a narrow range of 2.9%. This evidences the high level of competition in the industry.**
-  **A quarter of steelmaking companies had negative net profit margin in the past 10 years.** Such situation theoretically cannot last for decades and should result in a withdrawal of non-competitive actors from the market and a reduction in excess capacity. However, **due to the high social importance of the steel industry, governments in many countries are ready to support loss-making producers.** This only aggravates the problem of excess capacity and negatively affects the industry's 'financial health'.
-  **Russian companies are market leaders in terms of efficiency.** Average EBITDA margin of local companies was 21% in 2019. Such high profitability indicators can be explained by vertical integration of almost all local market actors.
-  **The profitability level in the industry does not depend on the size of a company. This factor restricts motivation for M&A.**
-  Despite a drop in EBITDA, steelmaking companies increased CAPEX by 31% in 2019. **CAPEX growth in 2017–2019 was a recovery after a period of decline in 2014–2016. Though the high rate of 2019 is probably due to the implementation of projects, decisions on which were made back in 2017–2018.**
-  China had the highest CAPEX growth rate. A decrease in investment in the steel industry was recorded there only in 2016.
-  In 2019, CAPEX/EBITDA of steel companies almost doubled, to 62.7%, which corresponds to the average value in the past 10 years. In other words, **steelmaking companies invest \$2 out of \$3 of EBITDA.**
-  **CAPEX per ton of steel was \$58 in 2019, with the average of \$48 in the past 5 years. To keep up with the industry, companies need to maintain long-term EBITDA per ton of above \$75.** In 2019, this indicator of Chinese public steelmaking companies was \$64.
-  Net cash flow of steelmaking companies fell by 27% in 2019. This indicator is extremely volatile. **Net cash flow of large companies has been in a positive area for the 6th year in a row, thus evidencing the industry's capability to reduce its debt burden.**
-  **In 2019, 30% of companies had negative FCF. This is the highest indicator in the past 4 years.**
-  The steel sector's net debt rose by 1.1% in 2019, following two consecutive years of declining. A growth in net cash flow in 2017–2018 indicates the capability of companies to reduce debt. **Average net debt to EBITDA in 2019 reached the maximum acceptable level of 3.0.**

# KEY IDEAS OF THE RESEARCH

- In 2019, 22% of companies had net debt to EBITDA above 5.0. In other words, **one in five companies is not capable of paying off its debt on a 5-year horizon. A high financial burden is not a problem for companies from countries with developed financial markets, because their debt can be easily refinanced. The situation is different when it comes to companies from developing countries.**
- In 2018–2019, Chinese companies essentially reduced debt burden and thus strengthened their financial sustainability. Until 2016, the Chinese steel industry's debt burden was dramatically higher than the world average. The way, in which China's companies managed to decrease debt burden and simultaneously increase their investment program, achieve profitability slightly higher than the market average and a high share of companies with negative cash flow, needs additional studies.
- In general, 2019 was better for the steel industry than the 10-year average. In 2020, the effects of the COVID-19 epidemic will be a stress test for steelmaking companies. GMK Center forecasts a decrease in EBITDA by 26% and in CAPEX by 31%. At the same time, net cash flow is expected to remain positive, while net debt to EBITDA will grow to 4.3.
- From a financial point of view, the steel industry is much better prepared for the crisis in 2020 than in 2014. In 2021, the industry's financial results are anticipated to improve, along with a recovery in global steel consumption.

## Key figures

**10.4%**

Average EBITDA margin of steelmaking companies in the past 10 years was 10.4%

**1.1%**

One in four companies in the industry operated with average EBITDA margin of 1.1% in the past 10 years

**\$2 out of \$3**

of EBITDA was invested on average by steelmaking companies in the past 10 years

**2.9%**

Average EBITDA margin of major steel producing countries was in a narrow range of 2.9% in 2019

**\$48**

CAPEX per ton of steel averaged \$48 in the past 10 years

**6 years**

The steel industry has positive FCF six years in a row

**30%**

A third of steelmaking companies had negative cash flow in 2019

**22%**

One in four or five companies in the industry has net debt to EBITDA above 5.0

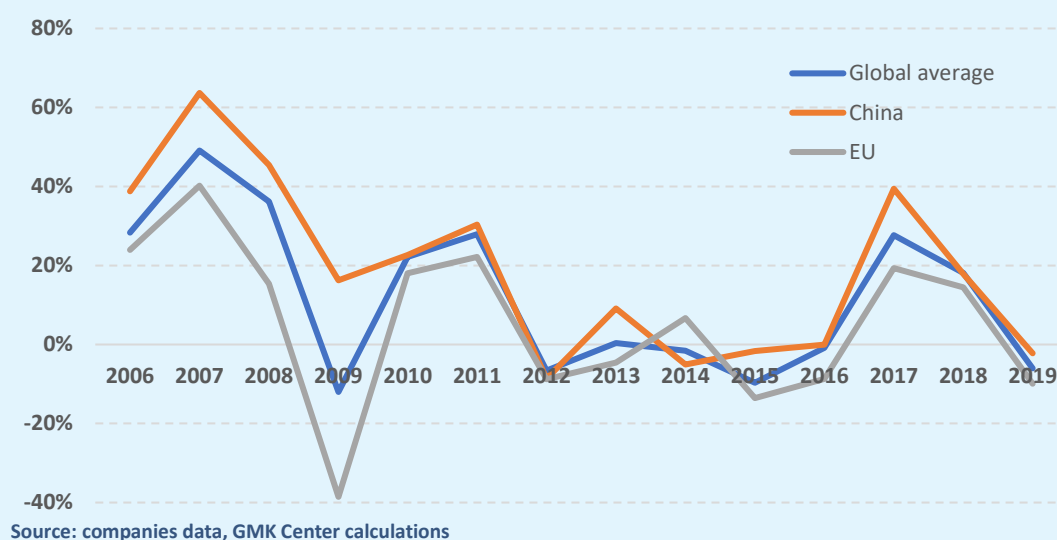


## SALES

The last year 2019 was extremely difficult for the global steel industry. Global steel consumption grew by 3.4%. A global growth however was driven by China (+8.5%) amid a fall in demand in all other regions of the world (-1.5%). As a result of weak demand, prices for rolled products and pipes went down by 13–18%. Therefore, despite a growth in global steel consumption, a fall in prices prompted an average decrease in the industry's revenues of 6%.

**In 2019, revenues of the steel industry declined by an average of 6%. The downward phase of the cycle began**

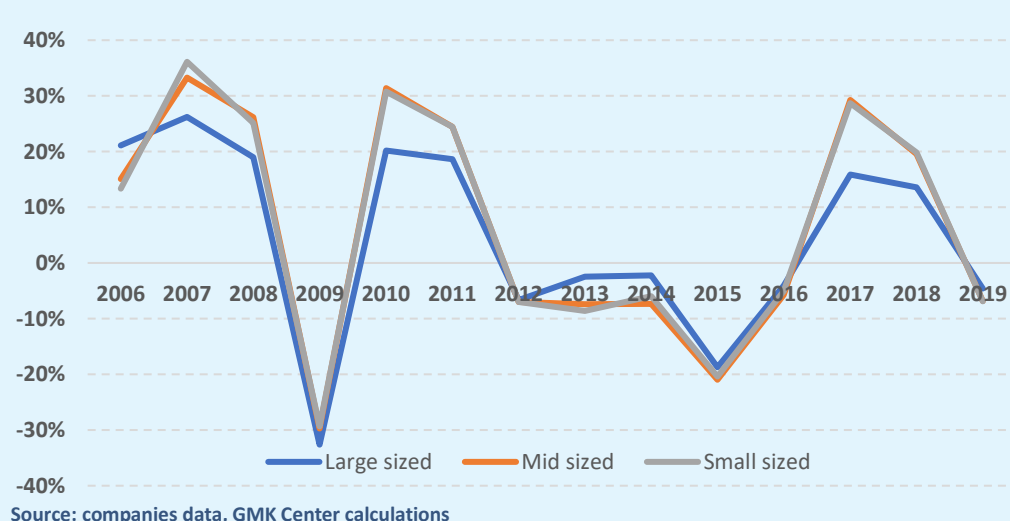
**Average revenue growth rate of steel companies**



**A decline in revenues in China was not that strong as in other regions, because China's domestic market showed an 8.5% growth in steel consumption in 2019**

In China, a decline in revenues was less than in other regions, 2.2%, while in the EU and U.S. around 10%.

**Average revenue growth rate of the steel industry depending on company size**



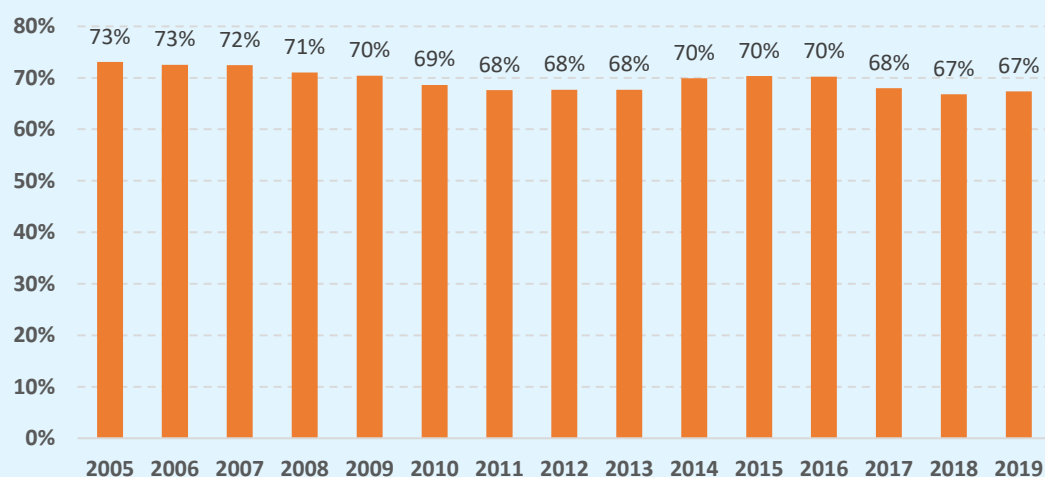
**Large companies showed the best revenue performance in 2019: revenues of large companies dropped by 4.5%, small and medium-sized by 7%**

There is no significant difference between income dynamics depending on the size of companies. However, large companies show less volatility of their results.

# FINANCIAL RESULTS

Large companies have a dominating share in the industry's revenues, around 67% in 2019. At the same time, a share of large companies is slightly decreasing every year. The maximum in the past 15 years was 73% in 2005.

Share of large companies in total industry's revenues

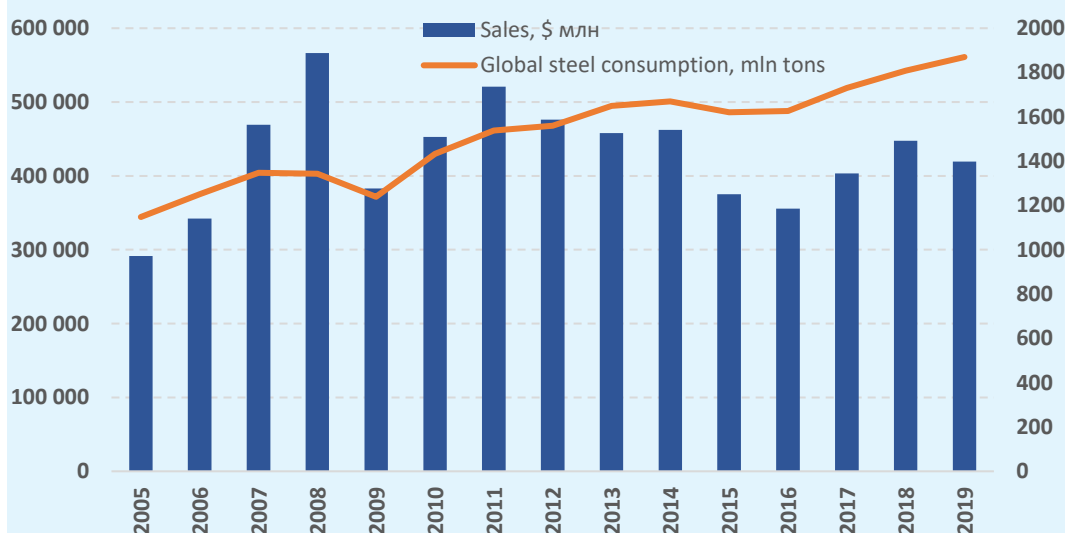


A share of large companies in industry's sales decreased from 73% in 2005 to 67% in 2019.

Source: companies data, GMK Center calculations

In recent years, the steel industry has started to earn less. Total revenues of large companies in constant prices in 5 years, from 2015 to 2019, fell by 15.5% against the previous five-year period of 2010–2014. This is despite a growth in global steel consumption in that period.

Total revenues of large companies in constant prices, \$ mln



Revenues of the steel industry in the past 5 years decreased by 15.5%. The reason is excess capacities

Source: companies data, GMK Center calculations

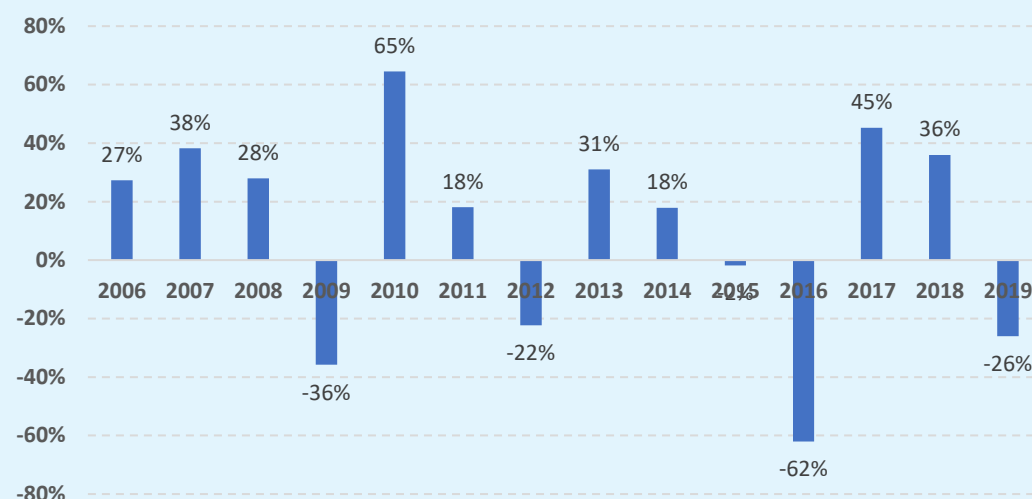
Revenue performance of large companies is typical for the entire industry, based on a high and stable share of large companies in the revenue structure. The reason for decreased revenues of steelmaking companies is, presumably, excess capacities that creates excess supply and thus puts pressure on prices.

## EBITDA

EBITDA in the steel industry in 2019 dropped much more than revenues, by 26%. Along with a drop in prices, prices for the main raw material, iron ore, increased. In the past 15 years, there were 5 periods of decline in EBITDA. In other words, on average, a year of decline accrues to every 2 years of growth. At the same time, the decline rate is usually 20–30%.

**EBITDA in the industry fell by 26% in 2019**

**Average EBITDA growth rate of steelmaking companies**

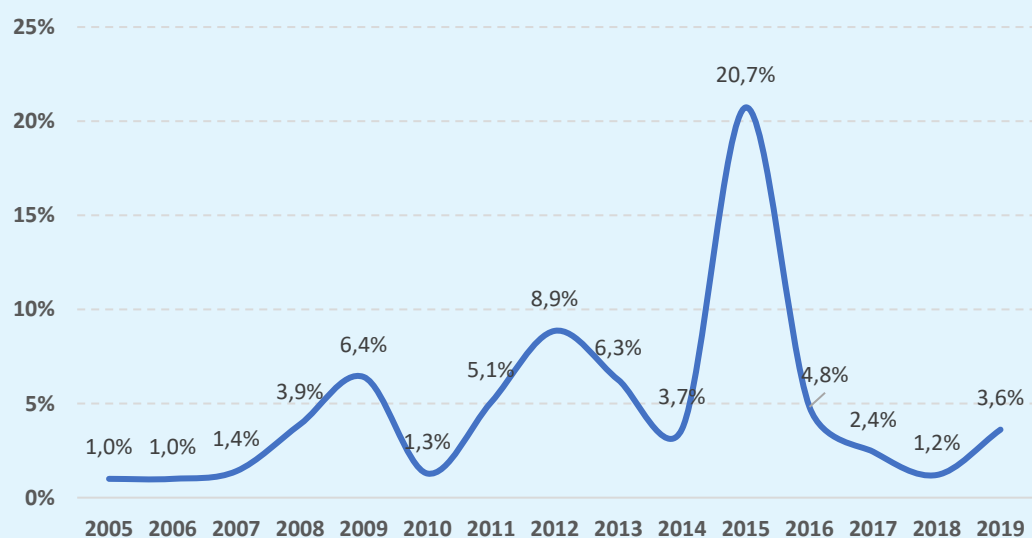


**Two years of growth account for a year of decline**

Source: companies data, GMK Center calculations

Despite the difficult market situation in 2019, it cannot be said that the year was a crisis. This can be seen by a share of loss-making companies. 3.6% of companies had EBITDA loss in 2019. For comparison, in the crisis years of 2009 and 2015, their share was 6.4% and 20.7% respectively.

**Share of companies with negative EBITDA**



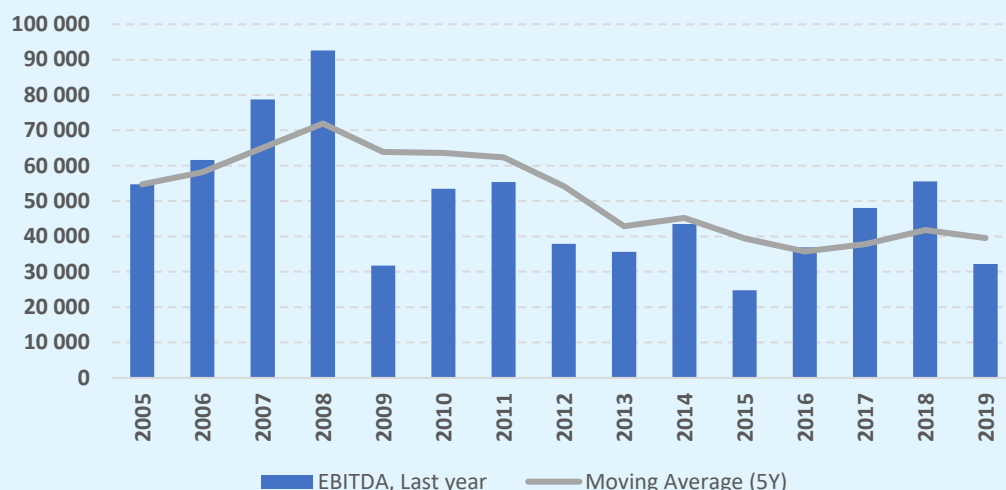
**In 2015, one in five companies had EBITDA loss. In 2019, only one in twenty-seven**

Source: companies data, GMK Center calculations

An average share of loss-making companies in the past 10 years was 5.8%. In other words, the 2019 value was below average. Though this year, 2020, with its effects of the COVID-19 epidemic, will bring losses to significantly more companies.

EBITDA of large companies in constant prices shows a long-term downward trend, as can be seen by the downward slope of the moving average. Specifically, in the past 5 years (2015–2019), average annual EBITDA of large companies was 13% down from the previous 5 years (2009–2014).

**Total EBITDA of large companies in constant prices, \$ mln**



Source: companies data, GMK Center calculations

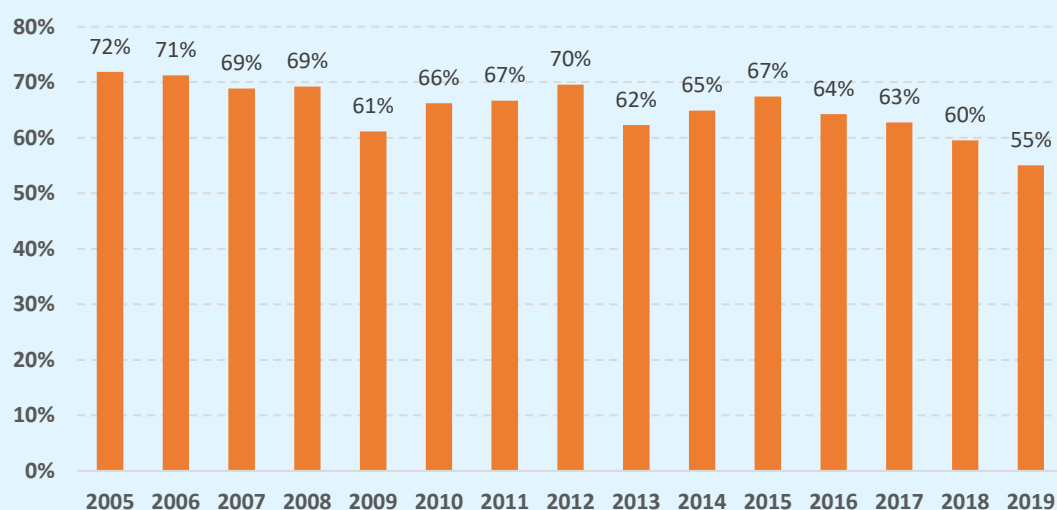
**In 2015–2019, average annual EBITDA in constant prices was 13% down from the previous 5 years**

EBITDA has been declining for long despite a growth in global steel consumption in physical terms (global steel consumption).

A decline in companies' profits also means a decline in investment opportunities. This poses a serious challenge, as the industry badly needs investment in the wake of the decarbonization and digitalization trends.

**A decline in companies' profits also means a decline in investment opportunities**

**Share of large companies in total EBITDA of the industry**



Source: companies data, GMK Center calculations

**Since 2016, a share of large companies in EBITDA has been falling.**

**It has become more difficult for large companies to make profit.**

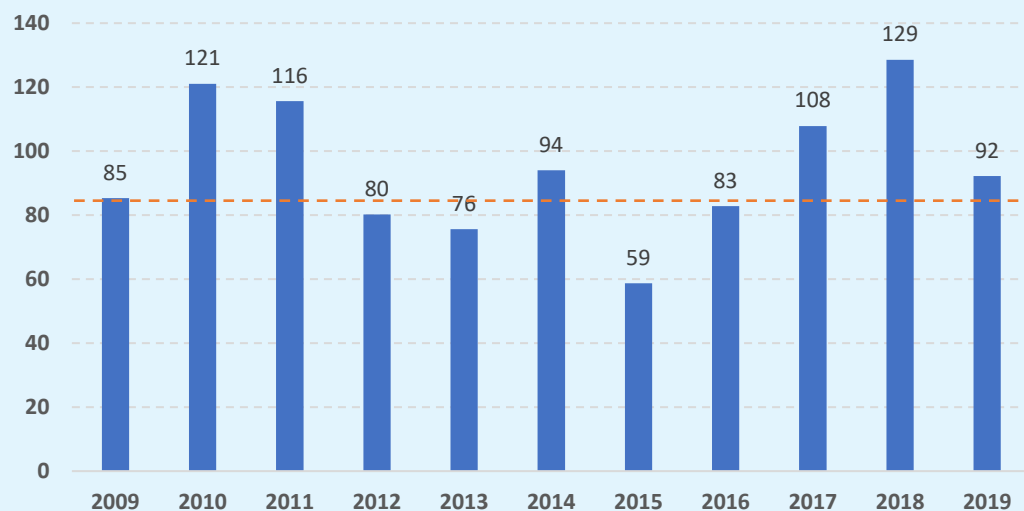
A share of large companies in EBITDA is lower than in the industry's sales. A trend towards further decrease has intensified since 2016. In other words, it has become more difficult for large companies to make profit.

# FINANCIAL RESULTS

After three years of growth, EBITDA of large companies per ton of steel decreased by 28.7% to \$92 in 2019. This indicator corresponds to the average value in the past 10 years.

**Average EBITDA per ton of steel was \$92 in 2019**

**Average EBITDA of large companies per ton of steel\*, \$**



**\$94 – average in 2010–2019**

\* includes EBITDA of integrated steelmaking companies, may contain EBITDA of other segments  
Source: companies data, GMK Center calculations

Average EBITDA per ton of steel does not give a complete picture of the situation of the industry. It differs significantly from region to region. Global average EBITDA per ton of steel is distorted to a some extent by the results of Russian companies, whose average EBITDA was \$174 in 2019. These high rates are likely due to vertical integration of local producers. For comparison, the same indicator of China's largest steel companies was \$64.

**Average EBITDA per ton of steel in China was \$64 in 2019**

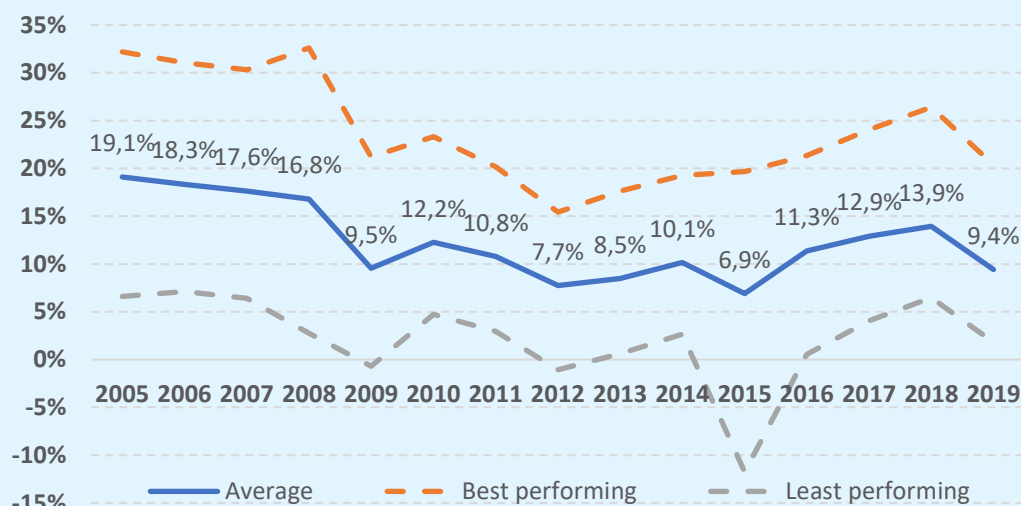


## EBITDA MARGIN

Global average EBITDA margin was down by 9.4% in 2019. The average rate was 10.4% in the past 10 years. The minimum profitability levels in the past 10 years were reported in 2012 and 2015, 7.7% and 6.9% respectively.

**EBITDA margin decreased to 9.4% in 2019**

**Average EBITDA margins**

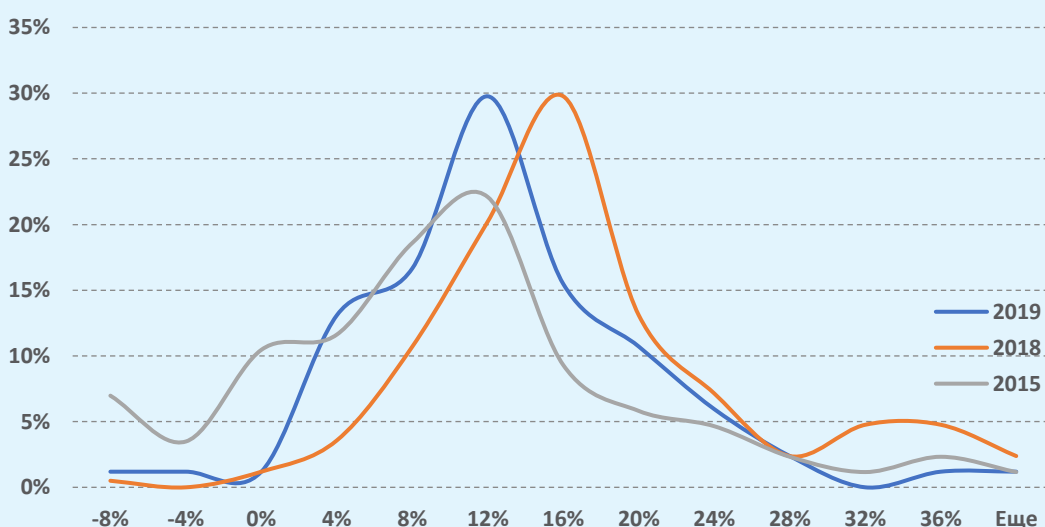


Source: companies data, GMK Center calculations

**A quarter of steelmaking companies had average EBITDA margin of 1.1%, i.e., operated on the verge of loss**

Companies of the first quartile (25% of companies with the lowest indicators) operated with average profitability of 1.1% in 2010–2019. This means that a significant part of producers are uncompetitive, but they continue to be in the market and aggravate the problem of excess capacities.

**EBITDA margin distribution curves**



Source: companies data, GMK Center calculations

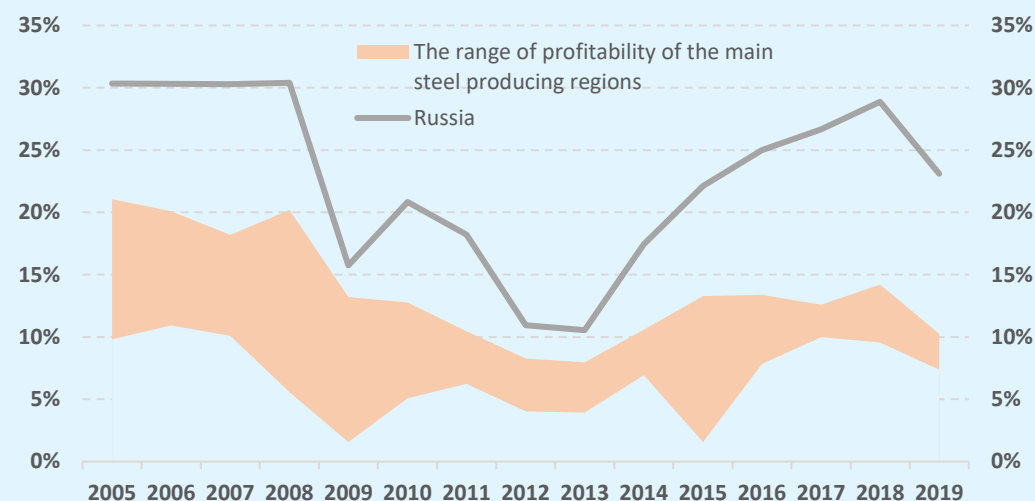
**In 2019, 62% of producers operated with EBITDA margin of 8–16%**

Most steelmaking companies (62%) had profitability of 8–16% in 2019. In general, the distribution curve shifted to the left against 2018, showing a drop in profitability. The 2019 situation however cannot be called a crisis; the curve's position is far from the levels of 2015.

# PROFITABILITY INDICATORS

Average profitability indicators by country were in a very narrow range. In 2019, this range was 2.9%, ranging from 7.4% (EU) to 10.2% (China). The trend towards the narrowing range has been recorded since 2010. This evidences the high level of competition in the industry.

## EBITDA margin by region



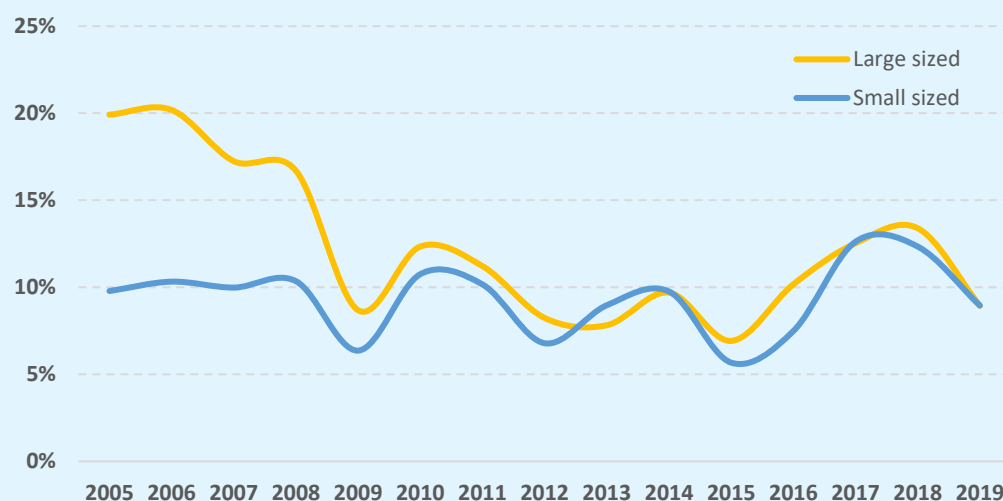
Source: companies data, GMK Center calculations

**Average EBITDA margin in 2019 in major steel producing countries was in a narrow range of 2.9%. This evidences the high level of competition in the industry.**

The profitability indicators of Russian companies stand out against this background. It has to be recognized that Russian companies are market leaders in terms of efficiency. Their high profitability rates can also be explained by vertical integration of almost all local actors.

**Russian companies take a lead in profitability**

## Dependence of EBITDA margin on company size



Source: companies data, GMK Center calculations

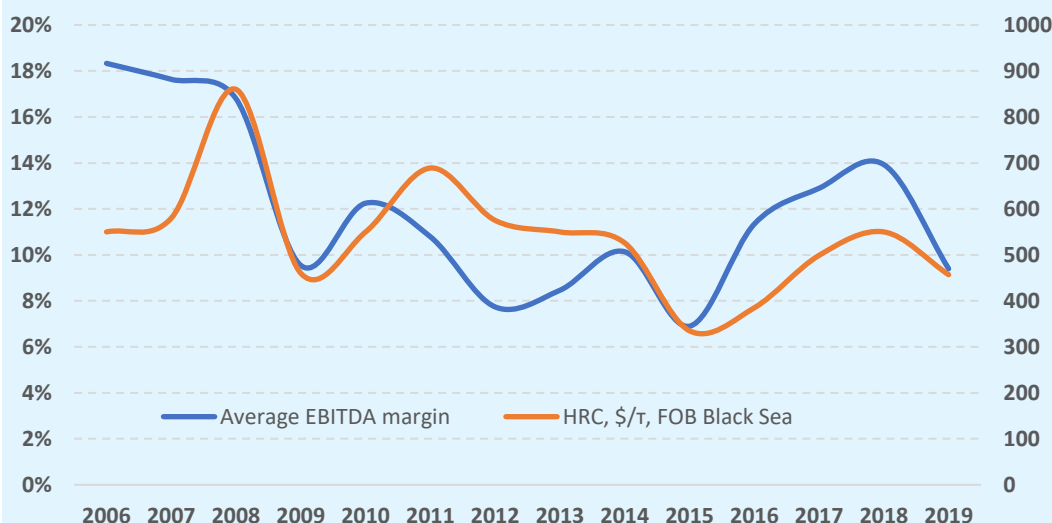
**The profitability level does not depend on the size of a company. This factor restricts motivation for M&A**

The profitability level does not depend on the size of a company. Certain differences existed before the 2008 crisis. In 2019, profitability of small and large companies was at the same level. This factor may restrict motivation for M&A deals in the industry.

# PROFITABILITY INDICATORS

Companies' profitability definitely depends on prices for finished products and raw material. In 2019, prices for rolled products shrank by 13–18% depending on a product type. At the same time, average profitability decreased from 13.9% to 9.4%. Prices were similar to the 2017 level, though EBITDA margin was much higher due to lower raw material prices.

**Dependence of EBITDA margin on prices for rolled products**

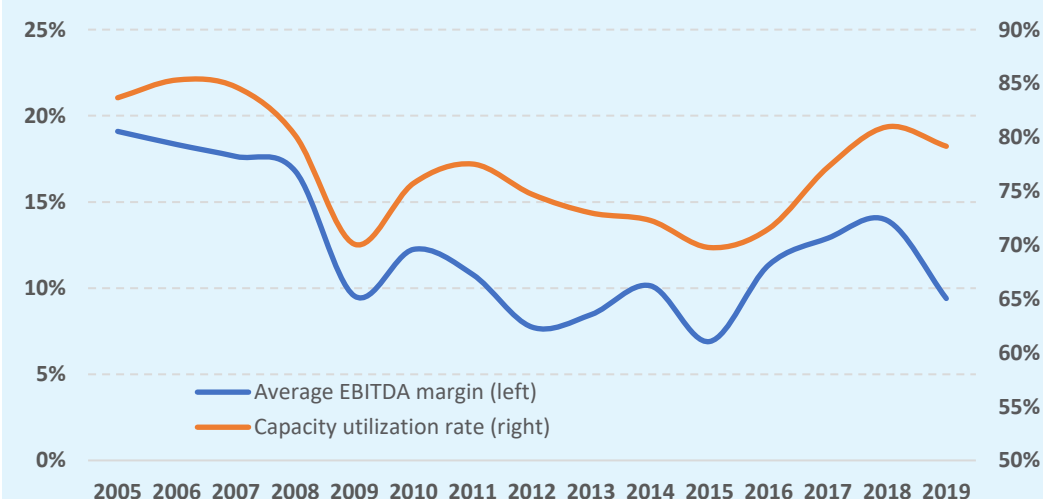


Source: companies data, media sources, GMK Center calculations

In 2020, prices for finished products are expected to fall by 7%, thus entailing a decrease in profitability

In 2020, prices for finished products are expected to fall by 7%, thus entailing a decrease in profitability.

**Dependence of EBITDA margin on average capacity utilization**



Source: companies data, OECD, GMK Center calculations

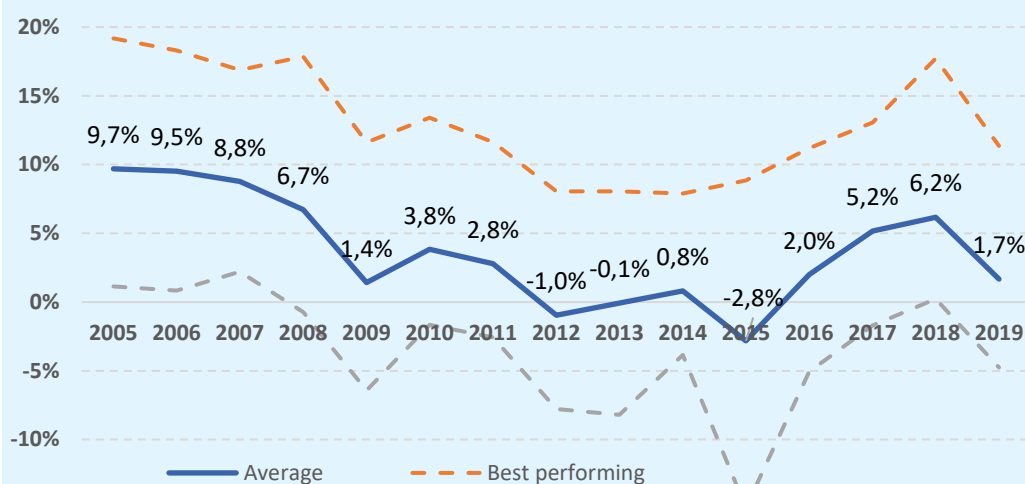
In 2020, steel capacity utilization is expected to drop to 74%, prompting a decrease in average profitability

The dependence of profitability and capacity utilization is well traced, since a cut in utilization is a result of weak demand and low prices. Steel capacity utilization in 2019 decreased from 81% to 79%. In 2020, it is expected to drop to 74%, resulting in lower margins.

## NET INCOME MARGIN

Average net income margin in the steel industry lowered from 6.2% in 2018 to 1.7% in 2019. The average value in the past 10 years was 1.9%, which is incomparably lower than the values before the 2008 crisis.

**Average profitability by net income**

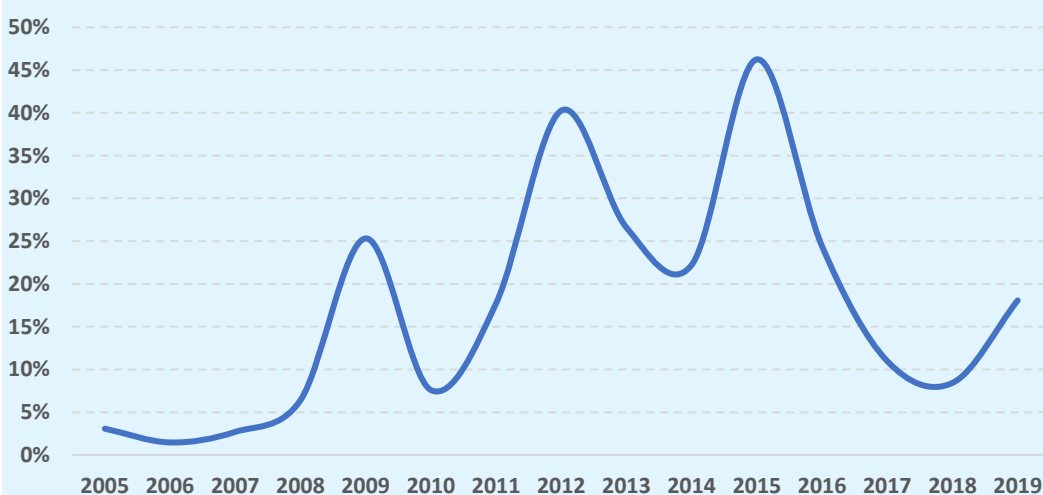


Source: companies data, GMK Center calculations

**Average profitability of steelmaking companies by net income in 2019 was 1.7%**

Companies of the first quartile (25% of companies with the lowest indicators) had negative net income margin of -5.0% in 2010–2019. In other words, a number of companies have been steadily making losses for 10 years.

**Share of loss-making companies by net profit**



Source: companies data, GMK Center calculations

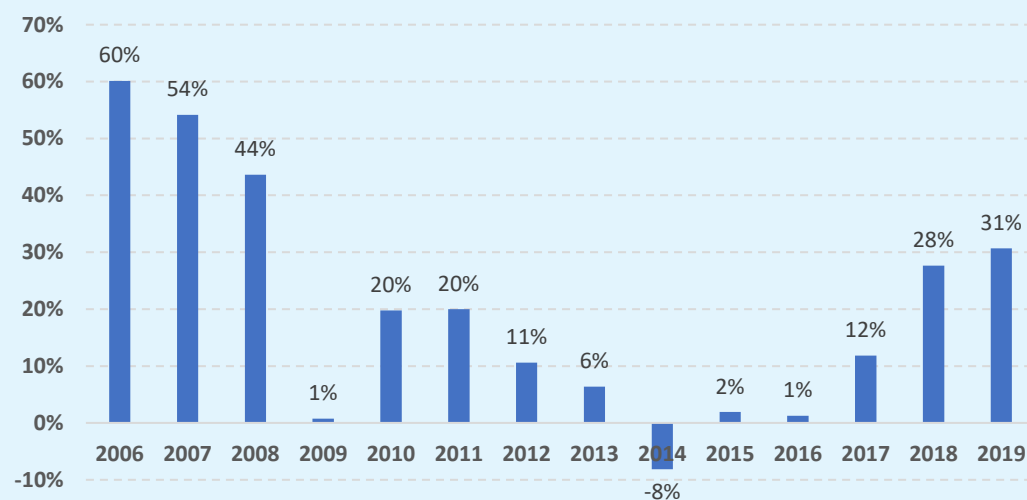
**One in four or five companies has been steadily making losses. Theoretically, this situation should lead to the withdrawal of weak players from the market. This however does not happen. Governments seek to support troubled companies due to the high social importance of the steel industry**

In 2019, a share of net loss companies was 18.1%. At the same time, the average value in the past 10 years was 22.1%. In other words, virtually one in four or five companies is steadily making losses. This is a challenge for the industry, since this problem needs to be solved.

## CAPEX

Despite a drop in EBITDA, steelmaking companies increased CAPEX by 31% in 2019. CAPEX growth in 2017–2019 was a recovery after a period of decline in 2014–2016. The high rate of 2019 is probably due to the implementation of projects, decisions on which were made back in 2017–2018.

**Average growth rate of capital expenditures of steelmaking companies**

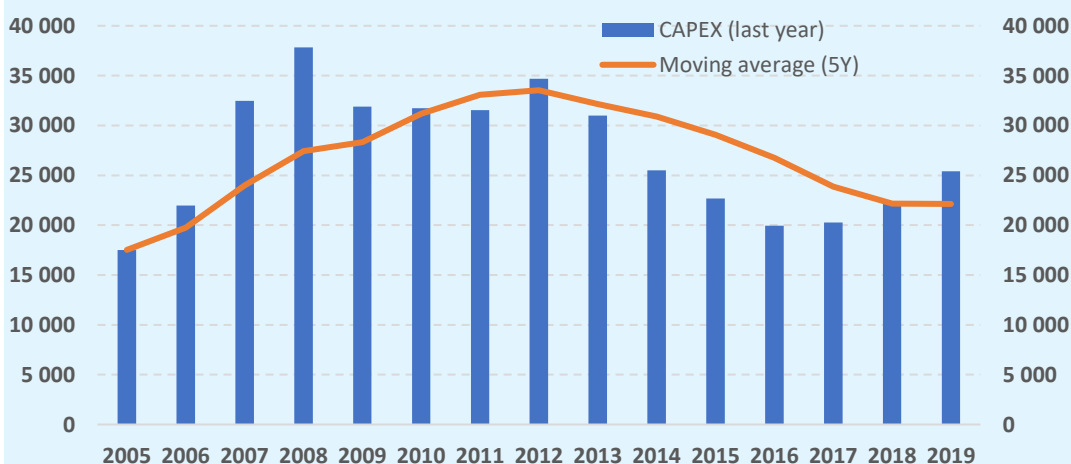


Source: companies data, GMK Center calculations

**Steel producers increased capital investments by 31% in 2019**

Large companies have been cutting their investments every year since 2012. Decreasing profitability, expectations of market stagnation, and high debt burden served as restraints. Some growth was recorded only in 2017–2018, in the upward phase of the market.

**Capital expenditures of large companies in constant prices, \$ mln**



Source: companies data, GMK Center calculations

**Large companies have reduced investments since 2013, following a decline in profitability**

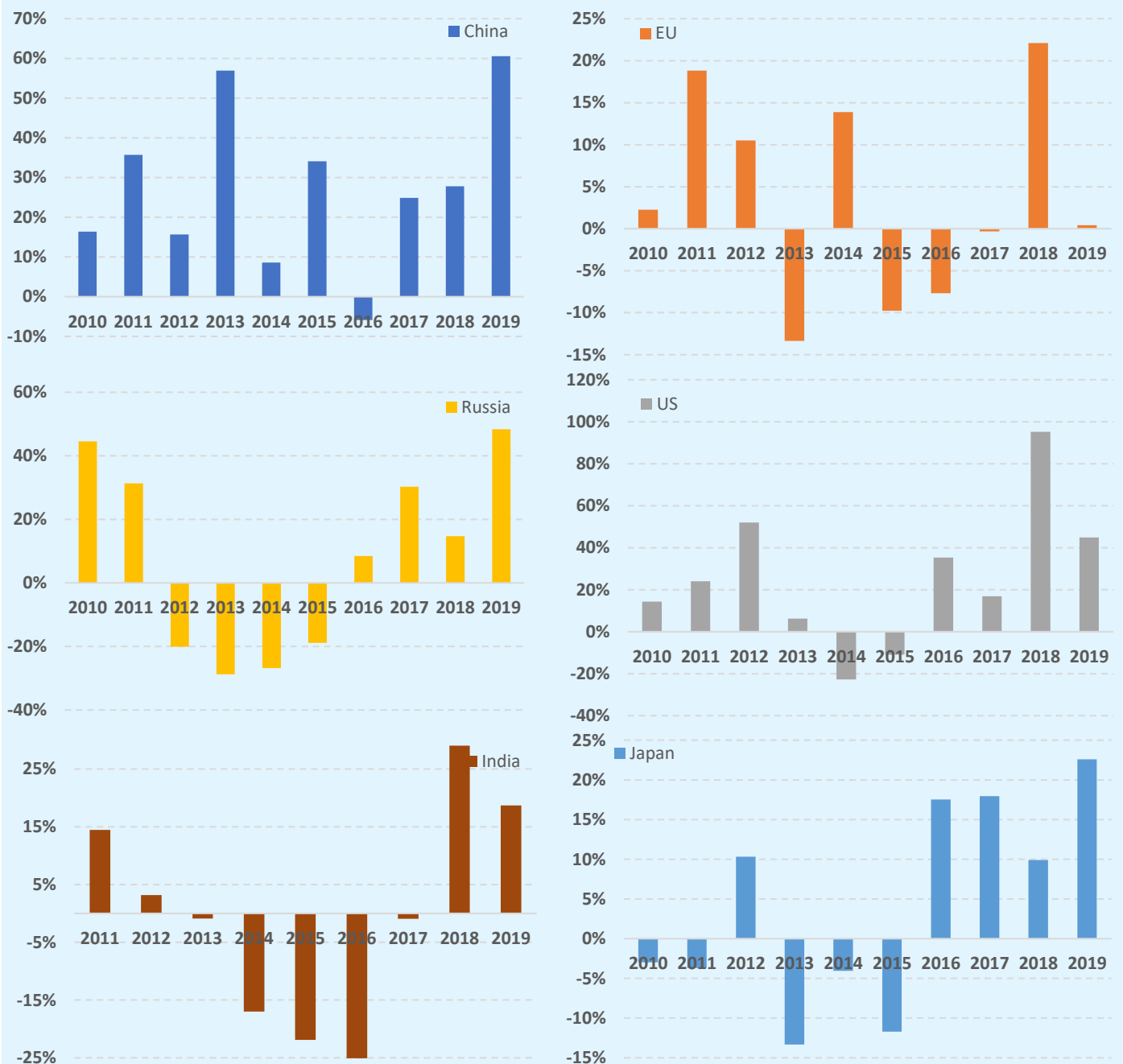
**A share of large companies in total CAPEX of the industry grew. In other words, other market participants cut their investments more significantly**

CAPEX of large companies grew by 16% in 2019. In the past 5 years, CAPEX of large companies in the total CAPEX of the industry grew to 70% against 62% in the previous 5 years.



# CAPITAL EXPENDITURES

Average growth rate of capital expenditures by country



Source: companies data, GMK Center calculations

China had the highest CAPEX growth rates. A decrease in investments in the country was recorded only in 2016. Companies are increasing CAPEX despite their intention to reduce capacity.

In 2010–2017, EU and U.S. companies pursued a conservative investment policy. A significant increase in investment was recorded only in 2018, as companies in the above regions took advantage of protective measures.

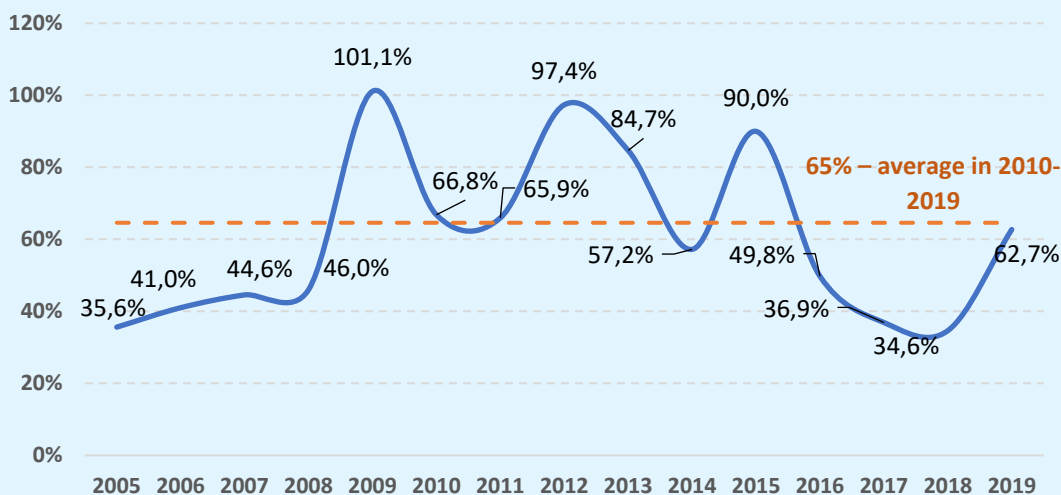
Russian companies started to cut investments in 2012 as a result of a policy focused on decreasing output and enhancing quality. Russian companies were among leaders in terms of investment growth in 2019. This is probably due to the implementation of projects that have been postponed for a number of years.

**In 2019, companies from almost all countries considerably increased capital investments**

## CAPEX/EBITDA, EBITDA PER TON OF STEEL

In 2019, CAPEX/EBITDA of steelmaking companies almost doubled and reached 62.7%. A twofold increase in the indicator was due to both an increase in the amount of capital investment in the industry and a decrease in EBITDA.

**Average CAPEX/EBITDA of steelmaking companies**



Source: companies data, GMK Center calculations

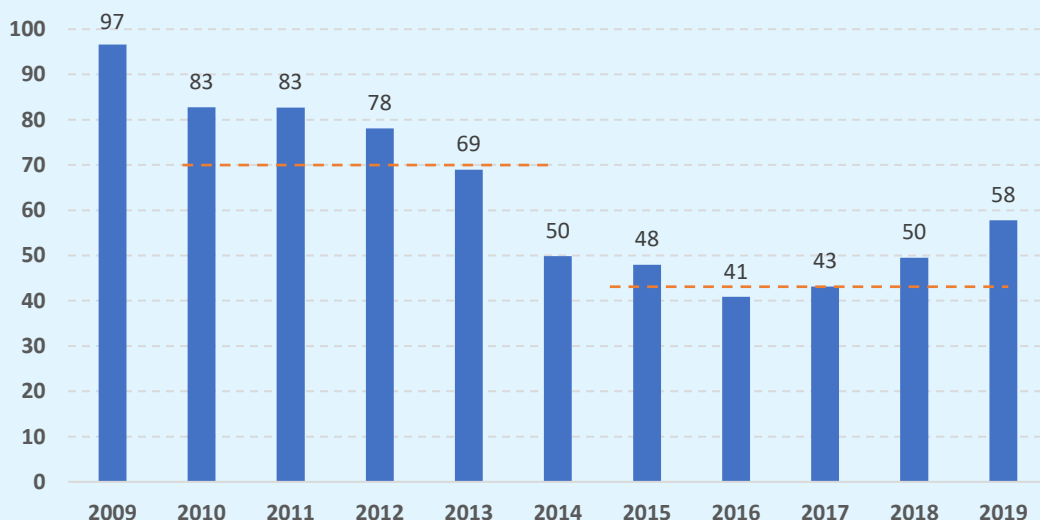
**Steel producers invest \$2 out of \$3 of EBITDA**

**In 2019, CAPEX/EBITDA amounted to 62.7%**

**CAPEX averages 77% of operating cash flow**

In times of crisis, CAPEX exceeds EBITDA. This means that part of investment is financed with borrowed funds.

**Average CAPEX of large companies per ton of steel, \$\***



\* includes CAPEX of integrated steelmaking companies, may contain CAPEX of other segments

Source: companies data, GMK Center calculations

**In 2019, CAPEX per ton of steel was \$58**

**To keep up with the industry, companies need to maintain long-term EBITDA per ton of above \$75**

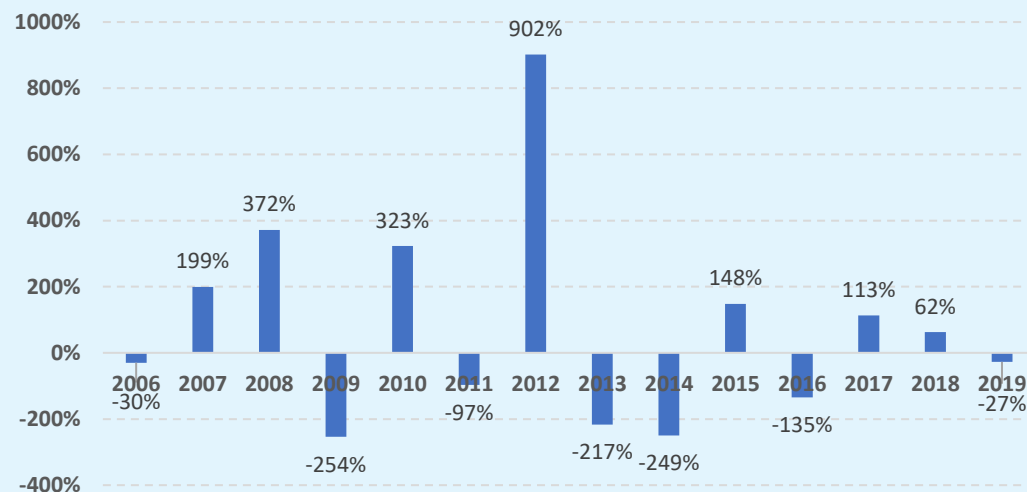
Investment policies of steel producers have dramatically changed since 2013–2014, as can be seen from the comparison of average indicators before and after 2014.

In 2019, CAPEX per ton of steel increased by 16.7% to \$58. Average CAPEX in the past 5 years was \$48. This means that to keep up with the industry, companies need to maintain long-term EBITDA per ton of above \$75.

## CASH FLOWS

Free cash flow (FCF) of steel producers fell by 27% in 2019. This indicator is extremely volatile.

**Average growth rate of free cash flow of steelmaking companies**

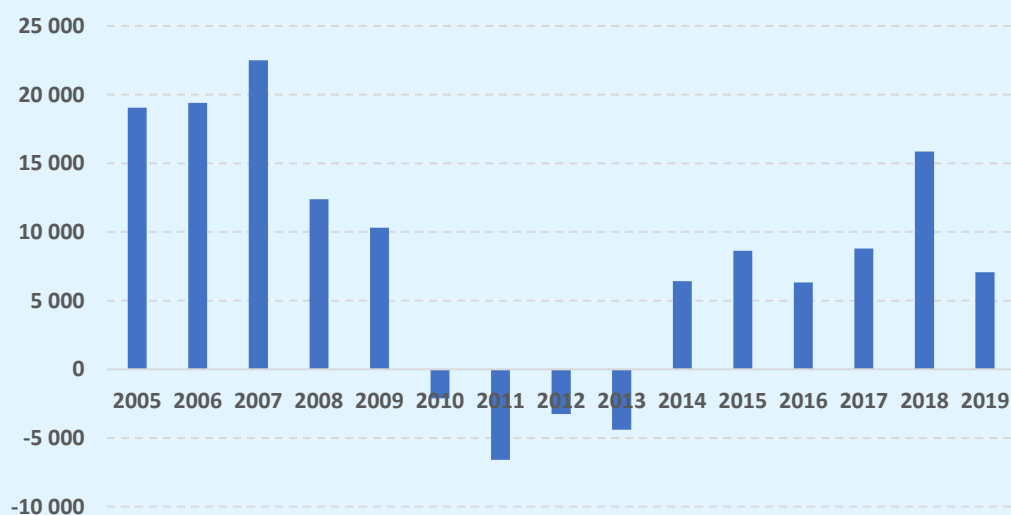


Source: companies data, GMK Center calculations

**FCF of steel producers fell by 27% in 2019**

In 2019, free cash flow of large companies decreased by 45%, but remained positive. This indicator has been in a positive area for the 6th year in a row due to a cut in companies' capital investments. This means that companies are capable of reducing their debt burden.

**Free cash flow of large companies in constant prices, \$ mln**



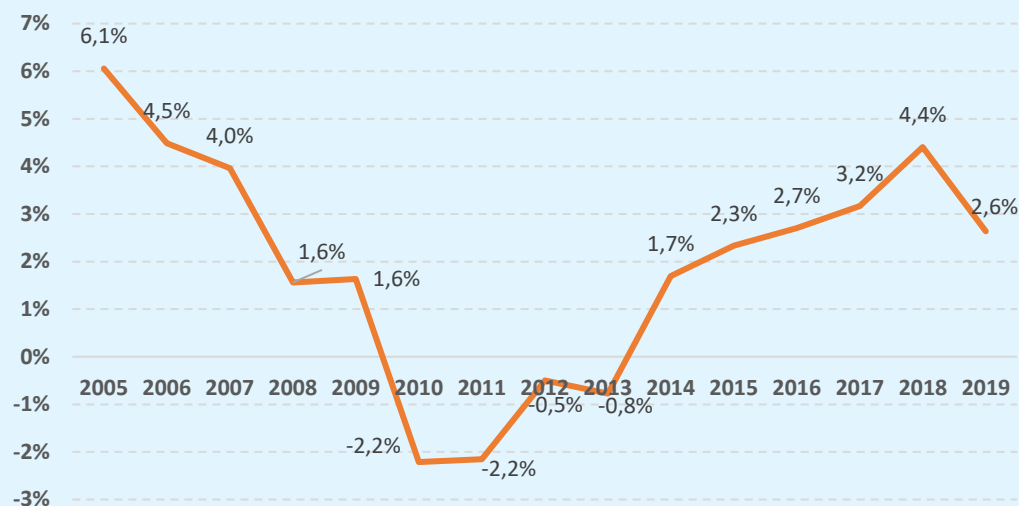
Source: companies data, GMK Center calculations

**In 2019, FCF of large companies remained positive for the 6th year in a row**

In 2010–2013, cash flow of large companies was negative. This was a period of high investment, followed by weak financial results in 2012–2013. After 2014, companies' policies changed.

Average FCF margin demonstrates that the industry had positive FCF last year. In 2019, this indicator was 2.6%, higher than the average for the past 10 years (1.1%).

**Average free cash flow margin**

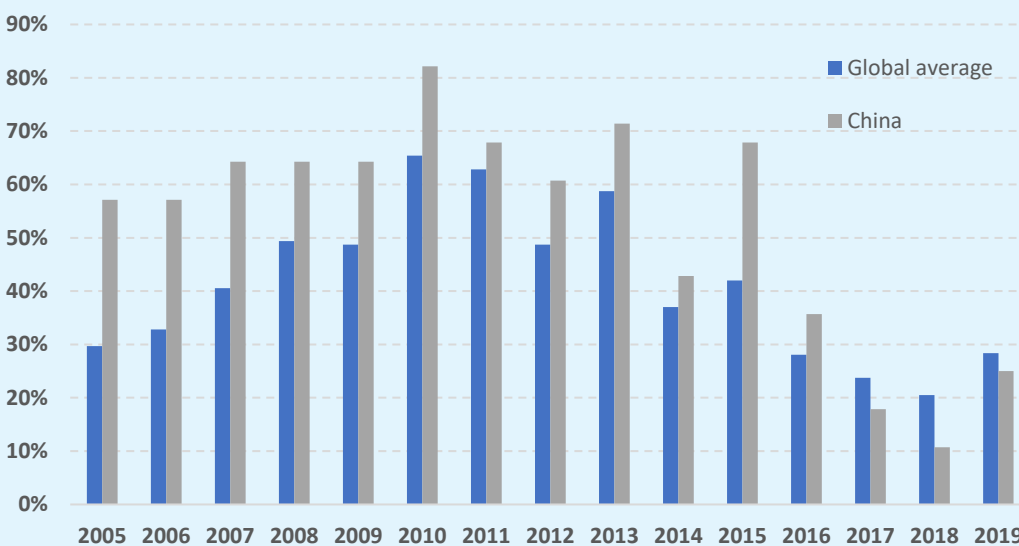


Source: companies data, GMK Center calculations

Shareholders have on average \$1.1 per \$100 of sales of steelmaking companies

Nevertheless, almost 30% of companies had negative FCF in 2019. This was the maximum indicator in the past 4 years, followed by the downward phase of the economic cycle.

**Share of companies with negative free cash flow**



Source: companies data, GMK Center calculations

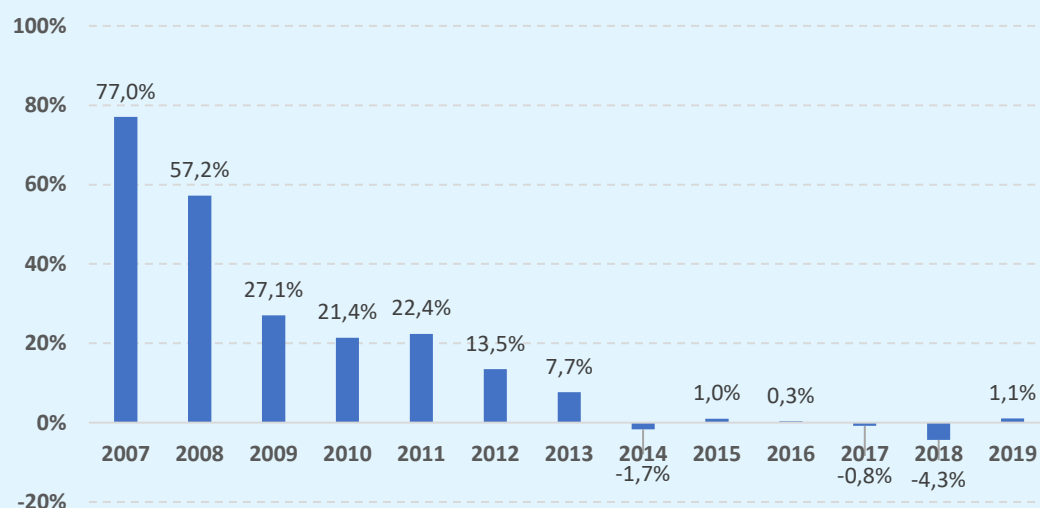
In 2019, 30% of companies had negative FCF. This was the maximum value in the past 4 years, a manifestation of deteriorated financial results of steelmaking companies

Different dynamics of a share of companies with negative FCF in the world and in China deserves attention. In 2005–2015, 60% of Chinese companies had a cash deficit covered by debt. The situation has dramatically changed since 2016, despite no reduction in China's CAPEX growth rate and profitability of local companies being insignificantly higher than the market average. Since 2017, a share of companies with negative FCF in China has become lower than the world average.

## NET DEBT/EBITDA

The steel sector's net debt rose by 1.1% in 2019, following two consecutive years of decline. Growing net cash flow in 2017–2018 allowed companies to reduce debt. In 2019, the opposite trend was recorded.

**Average growth rate of net debt of steelmaking companies**



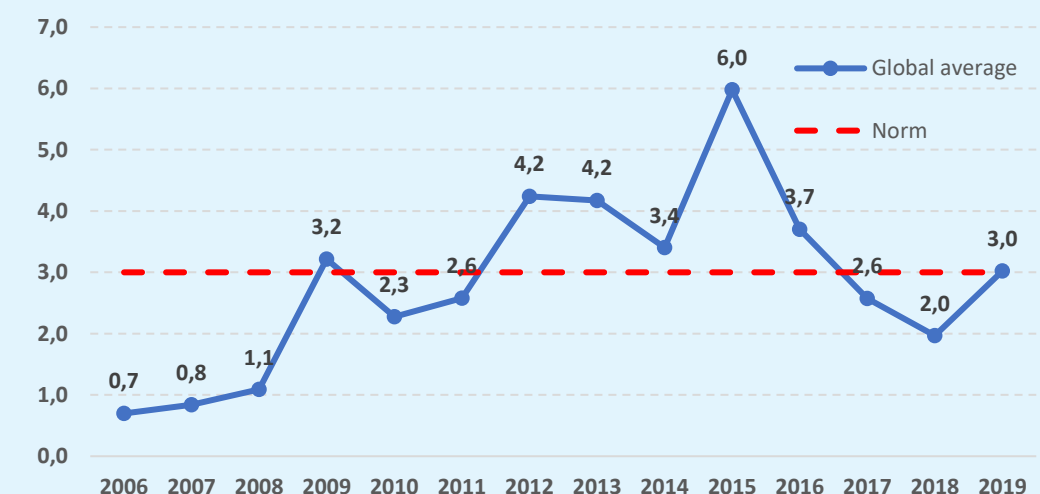
Source: companies data, GMK Center calculations

In 2017–2018, the financial health of the industry considerably improved. Companies cut investment programs and reduced the amount of debt

Net debt of steelmaking companies grew by 1.1% in 2019

Steel producers were extensively increasing their debt until 2014 amid a growing investment program. A deteriorated market situation in the industry in 2012–2013 resulted in the average value of net debt to EBITDA exceeding 4.2, while the 2015 crisis put the industry on the verge of bankruptcy.

**Average net debt to EBITDA of steelmaking companies**



Source: companies data, GMK Center calculations

Average net debt to EBITDA in 2019 reached the maximum acceptable level of 3.0

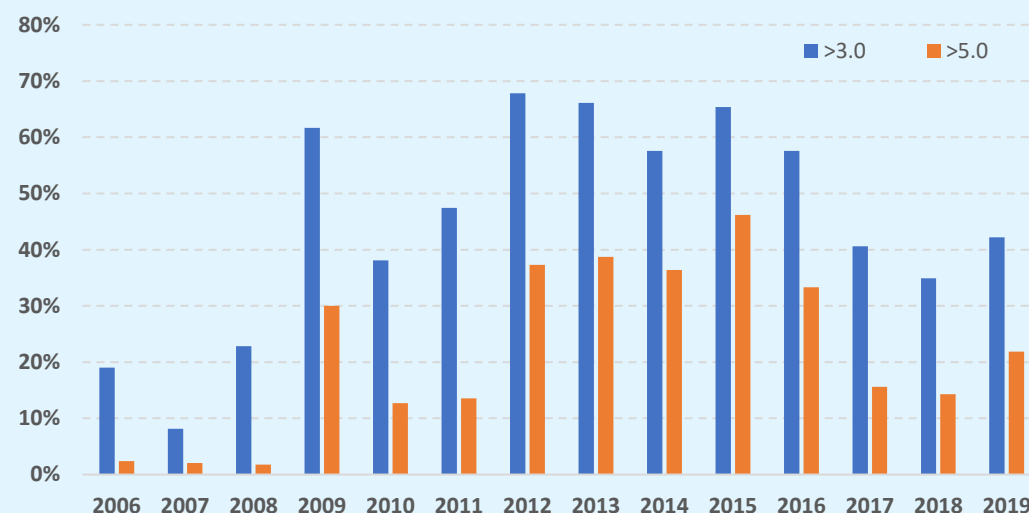
In 2017–2019, the financial health of the industry considerably improved. Companies cut investment programs and reduced the amount of debt. Average net debt to EBITDA reached 3.0 in 2019, which corresponds to the standard limit.



# DEBT INDICATORS

In 2012–2015, 65% of companies had net debt to EBITDA below the standard limit. In the next few years, in the upward phase of the economic cycle, this indicator dropped to 40% on average.

Share of companies with net debt to EBITDA higher than the standard limit



Source: companies data, GMK Center calculations

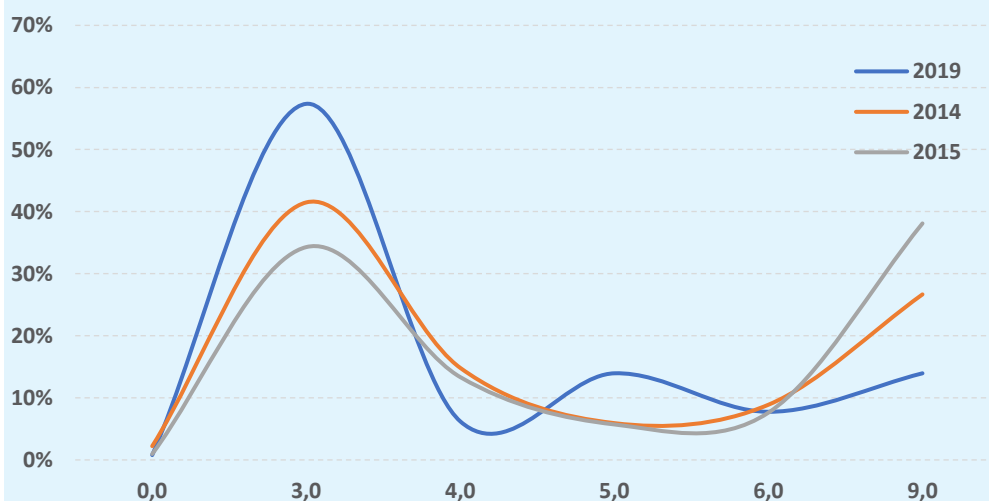
In 2012–2015, two out of three companies in the industry had a financial burden above the standard limit

In 2019, one in five companies had net debt to EBITDA above 5.0

The situation will worsen in 2020

In 2019, 22% of companies had net debt to EBITDA above 5.0. In other words, one in five companies is not capable of paying off its debt on a 5-year horizon.

Distribution of net debt to EBITDA



Source: companies data, GMK Center calculations

A high financial burden is not a problem for companies from countries with developed financial markets, because their debt can be easily refinanced. The situation is different when it comes to companies from developing countries.

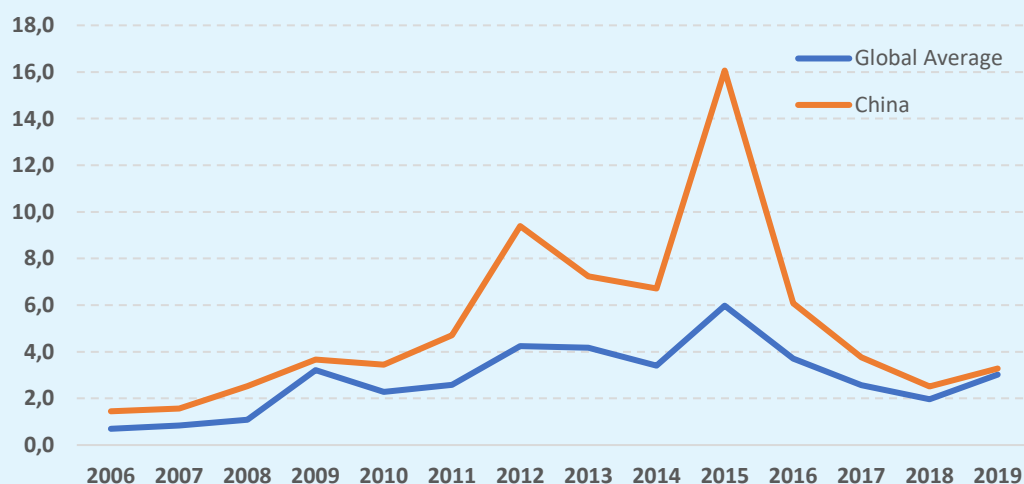
The tail of the distribution curve is traditionally stretched towards an increase in the debt load. This suggests that a number of companies with high debt load have been operating in the industry for many years. For companies from countries with developed financial markets, this is not a problem, since the debt can be refinanced. For companies from developing countries, the situation is different.

By the shape of the distribution curve, it is possible to say that the industry is better prepared for a crisis than in 2014.

By the shape of the distribution curve, it is possible to say that the industry is better prepared for a crisis than in 2014.

Until 2018–2019, Chinese companies had a debt load several times higher than the market average. This can be explained by the extensive credit-supported development of the industry in China. Local companies had negative cash flow and a high share of asset liabilities for a number of years.

**Average net debt to EBITDA in the world and in China**



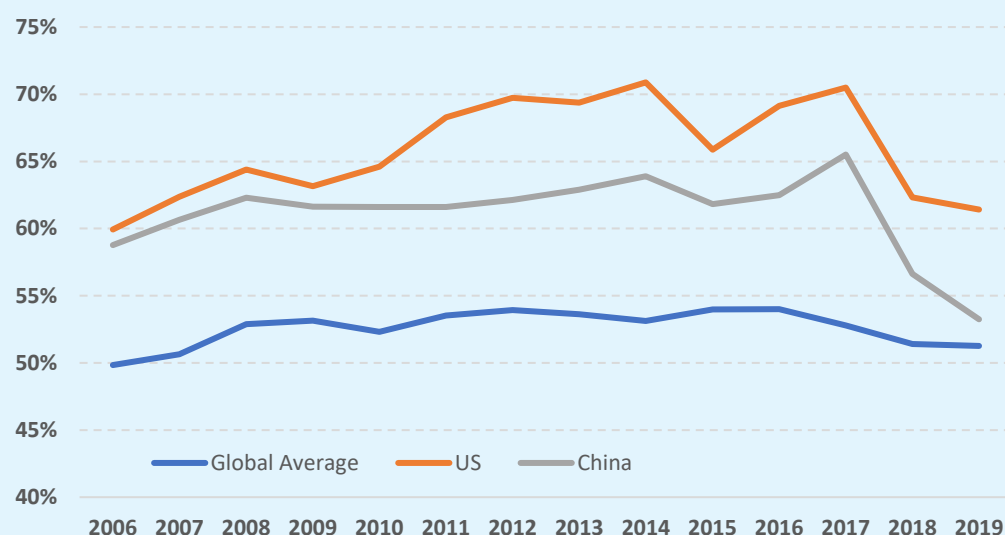
Source: companies data, GMK Center calculations

**Chinese companies essentially reduced their debt burden in 2017–2019.**

**In 2016, net debt to EBITDA of Chinese companies was 6.1 against a global average of 3.7. In 2019, the average indicators in the world and in China equalized**

In 2018–2020, the situation has changed dramatically. Chinese companies reduced their debt, bringing net debt to EBITDA in line with the market average.

**Average total debt to assets of steelmaking companies**



Source: companies data, GMK Center calculations

**Chinese and U.S. companies traditionally had a higher share of debt in assets than the market average. In 2017–2019, the situation changed and the financial health of the industry considerably improved**

The way, in which China's companies managed to decrease debt load and simultaneously increase their investment program, achieve profitability slightly higher than the market average and a high share of companies with negative cash flow, needs additional studies.

## FORECAST FOR 2020

In 2020, prices for rolled products may fall by 7%. Global steel demand will contract by 6.4%, according to the World Steel Association (Short Range Outlook June 2020), which will reduce steel capacity utilization to 74%. As a result, sales of steelmaking companies may fall by 13%. Dynamics will significantly vary depending on the region. Specifically, China recovered from the effects of COVID-19 much faster than other countries and will increase steel demand this year.

Average EBITDA margin will decline to 8.3%, according to a regression model depending on price spread factors (for finished goods and raw material basket) and average capacity utilization. EBITDA in the industry will decline by 11% on average.

Companies are expected to cut CAPEX by 30% in 2020. This is confirmed by companies' behavior in previous crises on the one hand and by statements of top managers of some companies on the other.

Due to a cut in CAPEX, the amount of net debt is unlikely to significantly change. At the same time, net debt to EBITDA will rise to 4.3 on average. Net cash flow will decline by 46%, but will be positive.

Steelmaking companies are expected to get out of the 2020 crisis without serious losses and bankruptcies, as the industry is much better prepared for the crisis this year than in 2014.

As a rule, a drop in EBITDA lasts no longer than two years in a row. Hence, an increase in financial results may be expected in 2021, along with a growing steel demand anticipated by the World Steel Association.

### Expected dynamics of financial results of steelmaking companies in 2020

<b>Sales</b>	<b>-13%</b>	<b>EBITDA</b>	<b>-11%</b>
<b>Average EBITDA margin</b>		<b>8.3%</b>	
<b>CAPEX</b>	<b>-30%</b>	<b>FCF</b>	<b>-46%</b>
<b>Net Debt</b>	<b>+/-</b>	<b>Average Net Debt/EBITDA</b>	<b>4.3</b>

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