December 17, 2018

For some – a trade war, for others – profits: Ferrous metals are resisting falling prices, maintaining the creditworthiness of the industry

Russian iron & steel industry: 2023 outlook

The forecast has been prepared in accordance with the General Principles of Socioeconomic Indicators Forecasting of ACRA.

- **In 2018, the trade wars between the US, China, and other steel producing countries kept steel and raw material prices from falling.** Nevertheless, from 2019 through 2023, we expect a decrease in prices for these products. The artificial increase in steel prices in the United States due to this year's 25% tariff on steel imports will dissipate. Support will be provided by the growth of supply of raw materials for the ferrous metal industry. By 2023, ACRA expects coking coal and iron ore concentrate prices to drop to USD 140-150 and USD 62 per metric ton, respectively (at the end of this year, up to USD 194 and USD 68). Concurrently, from 2019 through 2023, the commissioning of new steelmaking facilities in India and the Asia-Pacific region will continue, which could lead to a decrease in the global facility load to 72% (up to 76% this year). All this creates the prerequisites for the fall in steel prices. By 2023, hot-rolled flat products in the US market could fall from USD 810 to USD 560-580 per metric ton.

- **Steel production in Russia will exceed the 2014 level and reach 75-76 mln tons by 2023.** The growth of mortgage lending and its increased availability due to historically low rates (when compared to 2011-2016) will allow for an increase in new residential building: from 78 mln square meters in 2017 to 83-85 mln square meters by 2023.

- **The weakening of the ruble in 2018 and the expected foreign policy pressure on Russian currency will support exporters.** By 2023, coking coal exports could grow to 27-28 mln tons (4 mln tons more than in 2017), and iron-ore pellet supplies to international markets will remain at current levels. By 2023, billet and slab exports could increase to 18-19 mln tons (exports amounted to 16 mln tons in 2017).

- **The growth in rolled steel prices in Russia's domestic market will halt.** By 2023, prices could drop for hot-rolled flat products (from RUB 36.7 thousand per ton to 25-26) as well as for raw materials for the ferrous metal industry. However, the industry average FFO margin will remain above 25% and the FCF margin will be stable.

- **The industry debt load will remain at a low level. Belousov's plan might not lead to a boom in investment.** The indicative level of the industry debt load calculated for next year will remain low (as in 2018) even taking into account the slight increase that we expect to see in the capital costs of individual companies.

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Table 1. Russian and global iron & steel industry: the 2018-2023 forecast

Indicator	Measuring Unit	Fact			Estimate	Forecast				
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Steel production	**mln tons**	70.9	70.4	71.3	71.9	71.9	73.6	74.6	75.6	76.6
Steel production capacity	mln tons	86.5	87.3	87.3	88.5	88.5	88.5	88.5	88.5	88.5
Capacity unitization	%	82%	81%	82%	81%	81%	83%	84%	85%	87%
Cast iron production	**mln tons**	**52.5**	**51.8**	**51.6**	**52.7**	**53.9**	**54.1**	**54.1**	**54.1**	**54.1**
Sheet steel production	mln tons	28.1	27.9	28.2	28.6	29.4	29.8	30.2	30.5	30.9
Bar steel and structural steel	mln tons	22.9	22.8	24.1	23.8	24.1	25.1	25.4	25.7	26.0
Production of billets and slabs for export	mln tons	15	16	15	16	17	17	17	17	18
Metallurgical coke production	mln tons	28.6	28.4	27.9	28.5	29.1	29.2	29.2	29.2	29.2
Production of iron ore concentrate (IOC)	**mln tons**	**105**	**107**	**106**	**107**	**111**	**113**	**113**	**113**	**113**
Production of iron ore pellets (IOP)	mln tons	41	43	48	53	51	52	52	52	53
Lump iron ore extraction	mln tons	4	4	4	5	5	5	5	5	5
Production of hot briquetted iron and iron-rich pellets	mln tons	5	6	7	8	8	9	9	9	9
IOC exports	mln tons	12	12	7	6	6	6	6	6	7
IOP exports	mln tons	6	9	12	11	11	11	12	12	12
Coking coal production	**mln tons**	77	80	82	82	85	86	87	89	90
Coking coal exports	mln tons	18	22	23	24	24	25	26	27	28
Thermal coal production	**mln tons**	296	305	326	343	346	348	351	355	359
Thermal coal exports	mln tons	126	139	167	170	171	172	173	175	177
Hot-rolled steel coils, RF (EXW Moscow)	**RUB per ton, net of VAT**	24,414	29,309	33,174	36,709	32,436	28,198	26,829	25,526	25,117
Rebar, RF (EXW Southern Federal District)	**RUB per ton, net of VAT**	22,152	25,360	26,017	31,606	27,927	24,278	23,099	21,977	21,625
Hot-rolled steel coils, U.S. market	USD per ton	462	501	578	822	715	663	619	576	562
Cast iron, Russian market price	RUB per ton, net of VAT	14,042	14,663	18,370	20,800	18,379	15,978	15,202	14,464	14,232
Cast iron export price, RF (FOB	USD per ton	244	256	362	388	337	313	292	272	265
Scrap metal, RF (CRT Central Federal) District)	RUB per ton, net of VAT	10,910	11,704	14,749	17,688	15,629	13,587	12,927	12,299	12,102
Iron ore concentrate, RF (FCA)	**RUB per ton, net of VAT**	2,048	2,175	3,209	3,646	3,608	3,425	3,278	3,185	3,261
Iron ore pellets, RF (FCA)	RUB per ton, net of VAT	3,067	3,228	4,392	4,865	4,814	4,569	4,374	4,249	4,350
Iron ore concentrate, China (CIF	USD per ton	55	57	71	69	67	68	64	61	62
Coke, RF (FCA Northern Federal District)	RUB per ton, net of VAT	8,148	9,295	13,717	13,656	12,401	10,770	10,561	9,860	9,764
Coking coal, Zh & GZh grades, RF (FCA)	**RUB per ton, net of VAT**	4,419	5,792	9,085	9,603	8,720	7,573	7,427	6,934	6,866
Coking coal (hard coking coal), FOB Australia (contract prices)	USD per ton	90	106	148	194	173	160	154	141	138
Thermal coal RF, 6,000 kcal (FCA)	RUB per ton, net of VAT	1,693	1,723	2,200	2,617	2,351	2,162	2,150	2,122	2,126
Thermal coal export price FR, 6,000	USD per ton	57.4	67.1	90.7	108.2	73.6	72.2	70.5	68.0	67.6

Sources: reporting data by Rosstat, Metals and Mining Intelligence, Bloomberg, Ministry of Industry and Trade of Russia, forecast data by ACRA

Trade wars and natural disasters have contributed to high prices for raw materials and rolled steel

In last year's outlook, ACRA's analysts predicted that the growth in the production of raw materials amidst their high prices would lead to overproduction and, in turn, a reduction in prices. This was expected to cause a fall in steel prices. Events unfolded precisely as forecasted in the beginning of 2018, until the president of the US announced new tariffs on steel and aluminum imports. Stimulating steel prices in the US domestic market, this decision simultaneously contributed to their increase in the world market (the global steel market is focused on the US dynamic, which is characterized by the highest level of liquidity). Another reason for the growth in prices in the US market was the increase in demand for steel. In November of this year, a ton of hot-rolled flat products in the US domestic market cost USD 850-900.

In 2018, the market felt the effect of the trade wars and supply shocks due to natural disasters. Throughout the forecast period, ACRA expects the market to return to normal, which will allow the main price dependencies (described in the outlook prepared by the Agency "Commodity prices recovery to shore up Russia's metals & mining industry" dated November 7, 2016) to determine the market conditions.

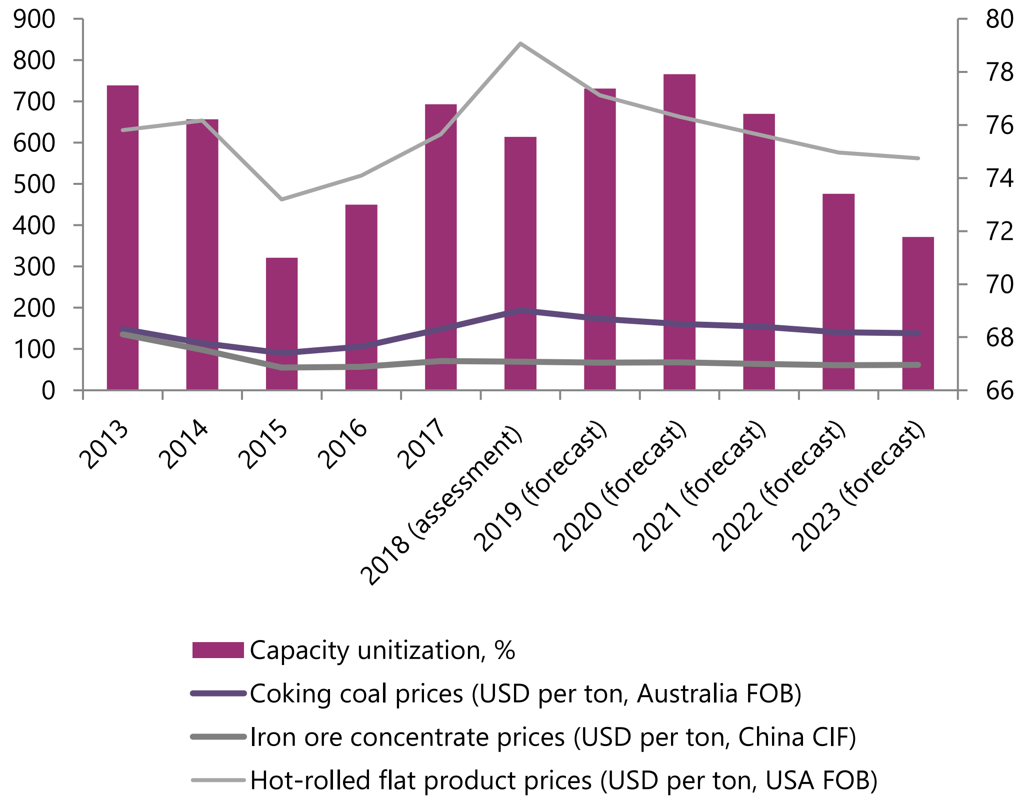
Weather has played a factor in commodity markets as rain and storm winds in Australia caused a reduction in the coking coal supply, while in the summer, heavy rain disrupted the loading of coal in Indonesia. Amid a growing demand for coal, this led to an increase in coking coal prices to USD 230 per ton on the FOB basis in Australian ports this November.

The growth in prices and demand for coking coal coincided with the increase in demand for quality iron-ore. Construction of large blast furnaces from 2004 to 2018 in Asian countries consuming raw materials led to the growth in demand for finished iron ore pellets with a high iron content or iron ore concentrate with a high metal content (62-67%). At the same time, a significant share of projects mining iron ore with an iron content of less than 58%, launched in late 2014-early 2016, provoked a significant reduction in prices on the world market. The market reaction to the current situation came in the form of an increase in price for quality raw materials. The spread increased between concentrates with an iron content of 58% and quality raw materials (62% or more of iron). Delays in the recovery of pellet production after the 2016 accident by the Brazilian company Samarco, one of the world's largest suppliers of pellets, also contributed. As a result, iron ore concentrate based on CIF ("Cost, insurance, and freight") is now shipped to Chinese ports at a cost of USD 70-75 per ton.

Freezing trade conflicts could return the market's attention to the cost of raw materials and capacity utilization

ACRA expects that from 2019 through 2023, the impact of the trade war between the US and China on the dynamics of the steel and commodity markets will weaken, which means that traditional factors (global steel-making capacity utilization and raw material price dynamics) will play an important role. These two factors will put downward pressure on steel prices worldwide. As a result, the steel price of hot-rolled products in the US market could decrease to USD 560-580 per ton.

Figure 1. The cost of steel products will decrease amid declining capacity utilization and falling prices for raw materials



Sources: OECD, Worldsteel, Bloomberg, ACRA's calculations

Despite the fact that China has fulfilled its promises and reduced its capacity in the steel sector, India, Vietnam, and other countries in the Asia-Pacific region will continue to develop steel complexes within the forecast period. At the same time, the growth in demand for steel will slow down and by 2023, capacity utilization could decrease from the current 76% to 72%.

In the coking coal market, the growth in supply from the US, Mongolia, Mozambique, and Russia will lead to a surplus and therefore coal prices could decline to USD 140-150 per ton (a comfortable level for most suppliers with low production costs).

Price dynamics in the thermal coal market will also move downward, which will be due to the reduction in the cost of alternative energy sources and the growth of coal supply from the US, Indonesia, Russia, and Australia. According to ACRA's assessments, thermal coal prices could decrease from USD 100-110 per ton in November of this year to USD 60-70 per ton by 2023.

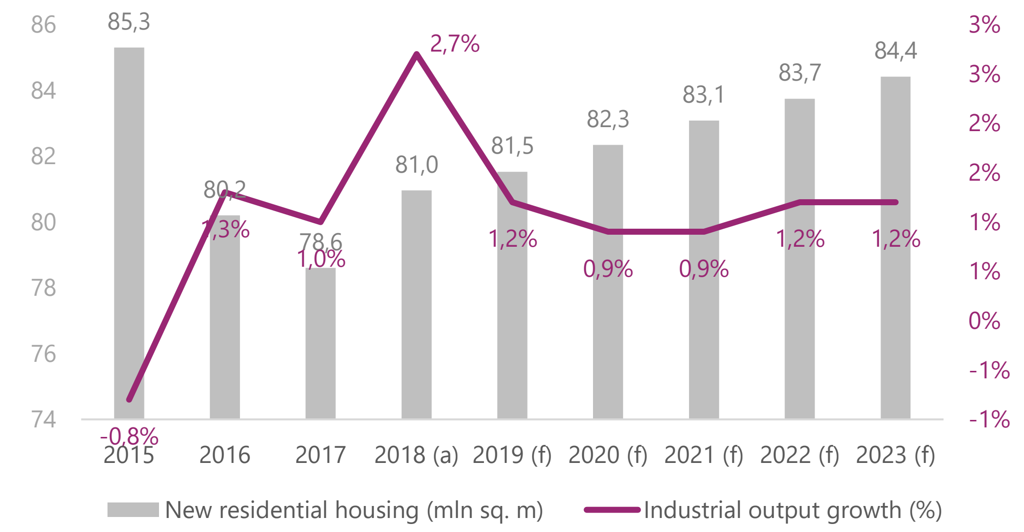
Iron ore raw materials will reduce in cost as a result of growing supply from Brazil and Australia. The deficit in the graphite electrode market, which last year led to an excessive demand for iron, this year has significantly weakened and in the future will not have such a substantial impact on the market. Iron ore concentrate, which currently costs USD 68 per ton, could cheapen to USD 62 per ton.

The Russian steel market: consumption could grow and prices could decline

Currently, due to new regulations in the construction industry, there are risks of serious deterioration in the industry due to the possible bankruptcy of small players as resources become more expensive (bank loans instead of investor funds). In this scenario, by 2023, steel consumption in Russia could be reduced to 38-40 mln tons, while at the same time the export of rolled products could grow by 5-7 mln tons to the level of the baseline forecast. ACRA does not consider this scenario to be likely quite yet.

In 2017, Russian steel production amounted to 71.3 mln tons, and internal steel consumption grew to 44.8 mln tons. The main contribution to the growth of demand was made by the pipe industry and the construction industry. At the same time, the structural steel segment developed at greater rates, which indicates that the high-rise construction sector is on the upswing.

Figure 2. Against the background of low growth rates of industrial production, residential construction is becoming a major factor in the growing demand for steel in Russia



Sources: Federal State Statistics Service, ACRA's forecast

Since July 1, 2018, amendments to the legislation on shared housing construction have been enacted, stipulating major changes for developers who receive construction permits.

More residential building projects were expected in 2017 than in 2016. However, this did not happen. This is because mortgage rates did not drop fast enough and because of builders' high demand for new sites (permission to build on new sites had to be obtained before the adoption of amendments to the legislation on shared housing construction). Now that these amendments have been enacted, builders will develop on land they receive. Mortgage loans will remain more accessible in comparison to 2011-2016. This will be an additional factor that will allow the construction industry to approach the record level of 2015 (85.3 mln square meters of housing). By 2023, 84.4 mln square meters of housing could be commissioned.

See ACRA's macroeconomic outlook for 2019-2022, "[Stressful scenarios are becoming more likely for the Russian economy]()," *from October 25, 2018.*

In 2018, growth rates of industrial production amid the Russian ruble depreciating and the strengthening of import substitution rates reached 2.7%. However, we do not expect that such a successful dynamic for the Russian industry will continue in the future. Nevertheless, the 1% per year growth will be supported by a demand for long steel products.

Prices in the domestic market will mimic the dynamic of the global market, taking into account the forecasts on the weakening of Russian currency. Hot-rolled products should reduce in price from RUB 36.7 thousand per ton excluding VAT (the current price in the Moscow region) to RUB 25 thousand per ton by 2023. In the same amount of time, rebar prices will reduce in price from RUB 31.6 thousand per ton excluding VAT to RUB 21.6 thousand per ton excluding VAT in the Moscow region market.

Belousov's plan might not lead to a boom in investment in the Russian metal industry

Despite the fact that companies in the metal industry decided to step up their investment programs after the publishing of Belousov's letter on the possible tax increase on metallurgical and chemical enterprises of the metallurgical sector, ACRA does not expect a substantial increase in investment revenue in the ferrous metal industry. From 2004 through 2014, most production assets were successfully upgraded. New projects will mostly cover agglomeration and blast furnace processes, coke-chemical facilities, and transport systems for industrial complexes, which will not require significant capital investments.

ACRA does not expect an increase in the sector's debt load in the medium-term within the framework of the projected price dynamics in the markets of raw materials and ferrous metallurgy, as well as taking into account the conservative assessment of the potential growth of investments in the development of these industries. The total debt to FFO ratio before fixed charges and taxes will amount to 2.0x in 2018 and could stay at this level from 2019 to 2020 (moderately low level of debt load).

It should be understood that the debt load of individual companies in the industry will differ greatly from the weighted average. However, in general, the risk of lending to enterprises in the industry is at a moderate level.