

ESTIMATION OF FACTORS AND PROJECTED GROWTH OF THE METALLURGICAL BRANCH OF RUSSIA UNDER UNSTABLE MARKET CONDITIONS

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The results of the performed analysis of the development indexes of the Russian metallurgical industry, the production dynamics and export tendencies of the largest exporters were represented. The estimation of the specific factors of price formation in the market of steel products of the Russian Federation, the record of the growth of prices for ore and coal in the world, together with the analysis of the main financial values of the activity of the largest metallurgical companies allowed calculating the projected indexes basing upon their activity for 2017-2018. On the base of these projected indexes of the companies' activity and worldwide trends of demand for steel products, the estimations of the products demand were given taking into account the determining factors of the branch development.

Keywords: metallurgy rolled steel products, market, price dynamics, financial indexes, Russia

INTRODUCTION

For many years, Russia has been the largest manufacturer and exporter of products of the metallurgical industry. According to the World Steel Association, Russia takes the fifth place in the world by its volume of steel production (5 %) next to China (60 %), Japan (8 %), USA (6 %) and India (6 %). More than 60 % of the products of the iron and steel industry are exported, that is, approximately 42,2 mln tons. The export of steel and products of the iron and steel industry are the main sources of export revenue of Russia (more than 4 %). In 2016, a share of products of the iron and steel industry in the Russian export was 5,12 %. Russia exports more than 30 % of profile rolled steel and more than 20 % of bar iron. At the same time, the domestic consumption has a tendency to decrease and in 2016 it reduced by 10 %. The main exporters of Russian steel are Turkey, Kazakhstan, Azerbaijan, Germany, China, Belgium, South Korea and also the CIS countries. More than 90 % of imported steel products are taken by the Ukraine and Kazakhstan.

The Russian market of steel manufacturers and metallurgical products is represented at 80 % by the highly integrated business; mainly these are industrial complexes with a vertical structure combining the companies to provide the complete cycle of metallurgical production, including the resources production, their processing, iron and steel smelting, manufacture of steel products, their deep processing and sale. The leading Russian steel manufactures are NLMK Group, MMK, SEVERSTAL, EVRAZ, Metalloinvest, and Mechel.

Among the largest industrial complexes, the most export oriented is NLMK Group that exports 61 % of the manufactured steel (9,4 mln tons). Amid the crisis in the world market, all manufacturers of steel products in Russia suffer the economic difficulties but since 2015, the growth is observed in the branch that is projected till 2018. The determinants of the branch development, according to Reuters, are the projected growth of demand for profile rolled steel in the construction field of China and Asia, the positive changes in the construction branch of Russia and also the policy of the USA to support the growth of prices for steel products. The negative factors are the risk of surplus production and the policy of the price decrease in the export markets.

Methods. Analysis of growth indexes of the metallurgical industry

The production of steel and steel products in Russia is directed to the domestic consumption as well as to the export supplies. In 2015 in Russia, 69,4 mln tons of steel were manufactured that is approximately 5 % of the world production. In 2015, the domestic steel consumption in Russia was 39 mln tons or 55 % of the production volume. Almost half (49 %) in the volume of domestic consumption was profile rolled steel (18,9 mln tons) and steel reinforcement (7,4 mln tons). The main consumers of the profile rolled steel are the automobile and shipbuilding industry, pipe plants, steel structures plants, and reinforcement is consumed by the companies of constriction field. During 2014-2016, the import of the profile rolled steel decreased more than twice and was 1,5 mln tons in 2016; at the same time, the external markets grew by 10 % and were 8,6 mln tons [1-4].

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The Russian market of steel manufacturers and steel products consist of 80 % of integrated business. Most of them are industrial complexes with a vertical integration and combine the companies making the complete cycle of metallurgical production from the resources production, their processing, iron and steel smelting till the production of steel products, its deep processing and sale [5-6].

The steel production volumes and export share of the largest Russian companies are shown in Table 1.

Table 1 **Steel export share of the largest Russian manufacturers (beginning of 2016)**

Companies	Steel production, thousand tons	Steel exports, thousand tons	Export share in the company's production /%
NLMK Group	15,4	9,4	61
MMK	12,2	2,9	24
Severstal	11,5	4,3	37
AEVRAZ	11,4	5,7	50
Metalloinvest	4,4	4,7	73
Mechel	4,3	2,8	65

NLMK takes the leading position, producing 15,4 mln tons of steel per year, which is 23 % of the Russian steel production. Among the largest industrial complexes, NLMK is the most export oriented, it exports 61 % of steel manufactured (9,4 mln tons); MMK takes the second place with 12,2 mln of steel per year. The third place is taken by Severstal with 16 % of the market, manufacturing 11,5 mln tons of steel per year. EVRAZ takes the fourth place manufacturing 11,4 mln tons. Metalloinvest takes the fifth place with 6 % of the market and 4,4 mln tons of steel per year. MECHTEL also takes 6 % of the market and produces 4,3 mln tons of steel per year. The share of other companies that are not included into the largest groups is 17 % of the steel market of the Russian Federation [1, 7-9].

Estimation of the dynamics and projected financial indexes of the largest Russian metallurgical companies

On the base of the public financial reports, the financial indexes of the five largest metallurgical companies were calculated for the period of 2013-2016, and also their forecast for 2017-2018 was made (Figure 1 (a, b)).

The performed analysis shows that the EBITDA margin (profit share before tax and interest payment in revenue) increases in all companies, especially in MMK, has positive dynamics and the projected growth for 2017-2018; Severstal is projected to have a small index decrease in 2018. Despite that in 2013-2015 NLMK had a sustainable growth of both indexes, the forecast says about some slowing of the growth by 2017-2018 that can be due to the increase in the loan portfolio of the company.

Thus, despite the crisis phenomena in the world steel market, that undoubtedly influenced the economic

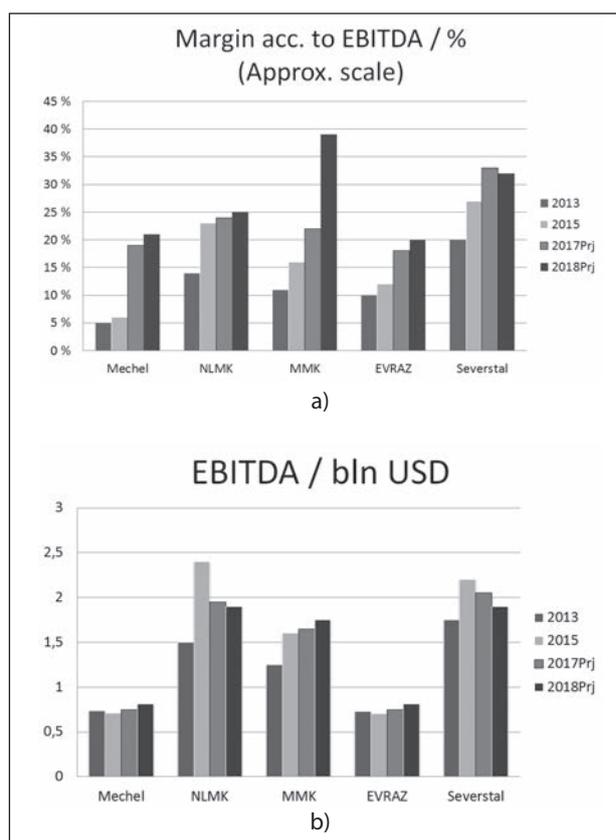


Figure 1 Financial indexes of the largest Russian metallurgical companies in 2013-2015 and the forecast for 2017-2018.

state of metallurgical companies in Russia, already since 2015 there is a growth expected in the branch of which the forecasts of the key financial indexes for the period of 2017-2018 show.

The estimation of dynamics and the forecast of the key financial indexes, including the capital expenditures of Russian metallurgical companies, show not only the impact on the business activity of external factors such as the branch market competitiveness and the world economic crisis but also the presence of the internal problems decreasing the competitiveness of the Russian metallurgical branch, in particular, the absence of reproduction of the raw material and ore reserves, lack of qualified human resources and also the high demand of modernization of the industrial processes that is connected with morally and physically out-of-date equipment, which is worn for 63 %. As a result, there is a low level of labour productivity and high expenses of raw material, power and material resources in comparison with the competitors in the developed countries [7-10].

Price dynamics for steel products in the external and domestic markets

The interconnection of the internal and external prices can be called a specific character of price formation in the steel market in the Russian Federation. The domestic market is traditionally marginal for the companies, first of all, due to lower transport expenses and

possibility to maintain the attractive price level. For the Russian market of steel and rolled metal products, the main drive in 2016 was the situation in the world markets of raw material and steel products.

In the beginning of 2016, the balance was achieved between the internal and external prices for the hot-rolled products. For cold-rolled mill products, the export prices till 2016 exceeded stably the internal prices. However, in the 1st quarter of 2016, the prices for rolled products followed the increasing trend in the markets of the metallurgical raw material and by April 2016, they reached the maximal level of the beginning of 2015 – more than 450 USD per ton. In the second quarter of 2016, the prices for rolled products in the world markets decreased and reached 355 USD per ton. However, in the 3rd quarter of 2016, the world prices for rolled products started to grow due to the revival of the domestic demand in Europe, growth of prices for ore and coal, growth of demand in the property market in China. As a result, by the end of 2016 the prices for hot-rolled products and cold-rolled mill products reached their two-year maximum.

At the same time, the domestic Russian prices for hot-rolled products are 530 USD per ton and they still exceed the export prices – 490 USD per ton.

Results. Projected demands for products and estimation of the determining factors of the branch development

According to Reuters, in 2018 analytics expect the continuing growth of demand for profile rolled steel at the expense of the construction sector of China and infrastructural projects in Asia [11]. Besides, the ambitious infrastructural plans of the new administration of the US president will support additionally the growth of prices for steel products. The expected risks include the risk of surplus production and tightening of the reflationary policy in the export markets [4].

In 2017, the restoration of the investment activity in the private sector is expected, which will allow increasing the internal consumption of reinforcing steel up to 7 mln tons. At the same time, it is rather difficult to project the prices for reinforcing steel due to the high uncertainty of the market. The main risks for the Russian market are the maintaining of the price fixing of the manufactures and situation in the construction branch of China.

CONCLUSION

The performed analysis proves that the financial indexes and competitiveness of Russian companies in the nearest future will be influenced negatively by such factors as the high wear of the fixed production assets (63

%); lack of reproduction of the raw material reserves and ore and potential shortage of the particular types of raw material; low labor productivity level; increased expenses of raw material, power and material resources per production unit in comparison with the competitors in the developed countries; low level of implementation of new technologies; lack of qualified human resources.

To keep the existing positions in the world and domestic market of steel products, the Russian metallurgical companies shall speed up the process of facilities restructuring and for this they should transfer from the policy of the fast revenue due to the decrease in the material intensity and payment capacity of the products to the strategic problems solving: to increase significantly the share of deeply processed metal products on the base of steel processing inside the country, to make efficient communications between the suppliers of raw material and ore and the metallurgical plants, improve logistics and other business processes.

REFERENCES

- [1] Strategiya razvitiya metallurgicheskoi promyshlennosti Rossii na period do 2020 goda [Development Strategy of the Metallurgical Industry of Russia till 2020]. Retrieved May 14, 2017, from <http://www.min-promtorg.gov.ru/ministry/strategic/sectoral/2/msword>
- [2] Yantovskii, A.A., Shirov, A.A. Mezhotraslevaya Makroekonomicheskaya model RIM – razvitie instrumentariya v sovremennykh ekonomicheskikh usloviyakh [Interbranch Macroeconomic Model RIM – Development of Tools in the Modern Economic Environment]. Problemy prognozirovaniya 3(2017) 162, 3-11.
- [3] Kazakova, N.A., Gendon, A.L., Khlevnaya, E.A. Development Potential of Russian Mining-And-Chemical Holdings. Gornyi zhurnal 7(2016), 89–91.
- [4] Official site of MMK. Retrieved October 5, 2017, from www.mmk.ru
- [5] Kazakova, N.A., Bolvachev, A.I., Gendon, A.L., Golubeva, G.F. Monitoring Economic Security in the Region Based on Indicators of Sustainable Development. Studies on Russian Economic Development 27(2016)6, 650-660.
- [6] Official site of World Steel Association. Retrieved October 5, 2017, from www.worldsteel.org/
- [7] Official site of NLMK. Retrieved October 5, 2017, from www.nlmk.com
- [8] Official site of Mechel. Retrieved October 5, 2017, from www.mechel.ru
- [9] Official site of Evraz. Retrieved October 5, 2017, from www.evraz.com
- [10] Official site of Severstal. Retrieved October 5, 2017, from www.severstal.com
- [11] Global steel demand growth to slow in 2018, worldsteel. Retrieved November 10, 2017, from <https://uk.reuters.com/article/uk-steel-demand-global/global-steel-demand-growth-to-slow-in-2018-worldsteel-says-idUKKBN1CL0Q2>

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