Preliminarily approved by decision of the Board of Directors of PJSC MMK Minutes dated 26/04/2019 No 13

Approved by the Annual General Meeting of Shareholders of PJSC MMK Minutes dated 31/05/2019 No 54

MMK ANNUAL REPORT FOR 2018

CEO
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Director of MMK-Uchetny Tsentr
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Letter from the Chairman of the Board of Directors

Dear Shareholders, colleagues and partners,

Last year was the third year that we have been implementing MMK Group's strategic development plan for the period through 2025. We can now summarise the first results and assess how well our chosen direction fits with trends in the global and Russian steel markets.

It is clear that our decisions were timely and sound in light of the challenges we are currently facing. The market for steel products is already beyond its saturation point, which means that the era of extensive growth has come to an end. With a surplus of supply and limited markets, the most competitive companies in future will be those that are now investing not in capacity expansion but in improving their overall efficiency and expertise in producing high-margin, commercially successful niche products.

Impressive results

In 2018, MMK Group produced 12.7 million tonnes of steel and sold 11.7 million tonnes of steel products. Total sales of MMK Group products increased by 0.4% y-o-y in 2018. Sales of high-value-added (HVA) products increased 2.9%, accounting for 46.5% of total sales.

The production of coal concentrate at MMK-Ugol increased by 10.1% to 3.0 million tonnes. The production of coking coal rose by 36.3% to 4,927 thousand tonnes. We were able to achieve this thanks to higher production capacity at the Kostromovskaya and Chertinskaya-Koksovaya mines.

MMK is Russia’s largest supplier of galvanised steel, with total sales of 1.3 million tonnes last year, which was a record high for the Company. Some 1.1 million tonnes of this was sold in the Russian market, with MMK supplying 34% of apparent consumption in Russia. MMK is also one of the largest players in the market for polymer-coated steel. In 2018, the Company sold 559 thousand tonnes of associated products, 90% (500 thousand tonnes) of which were supplied to the domestic market. A significant increase in sales—up more than 27%—was achieved thanks to the addition to MMK Group of the Lysva Metallurgical Company, meaning that MMK Group now has two sites responsible for the production and supply of polymer-coated steel. In 2018, MMK supplied 270 thousand tonnes of polymer-coated steel products to the Russian market, and the Lysva Metallurgical Company delivered another 231 thousand tonnes (nearly double 2017 production).

The Company’s EBITDA reached an all-time high of USD 2,418 million in 2018, a 19.0% y-o-y increase, while EBITDA margin rose to 29.4%. The Company’s net profit in 2018 was USD 1,317 million, up by 10.8% y-o-y. Free cash flow grew by nearly 50% y-o-y, amounting to USD 1,027 million in 2018.

These results are in line with our expectations and provide grounds for moderate optimism regarding our prospects for 2019, including in terms of the implementation of MMK’s strategic development programme.

Strategic investments

In approving MMK’s strategy through 2025, we officially brought to a close the Company’s previous period of development, which focused on organic growth and developing our processing of rolled steel, greatly expanding our product line and increasing the share of HVA products. Having completed a large-scale investment cycle, we now understand the need for further progress. First of all, this means investments in the modernisation of equipment in order to increase efficiency and reduce our environmental impact. The key focus for us at this stage is on upgrades to the first phase of processing: sintering, coke-oven and blast-furnace production. Finding a solution to this large-scale and capital-intensive challenge will enable us to achieve our goals—with the best-possible results—of reducing the cost of production, improving quality and drastically reducing our anthropogenic impact on the environment as efficiently as possible. This, in turn, is one of the most important elements in
improving the quality of life of Magnitogorsk residents and the ultimate goal of the Company’s Environmental Strategy and Clean City Initiative.

The first step in modernising the sintering, coke-oven and blast-furnace stage of processing is the construction of sintering plant No 5, the most advanced facility of its type in Russia and outfitted with a network of environmentally friendly facilities that are the only ones of their kind in the country. The capacity of the new plant will be 5.5 million tonnes of sinter per year. Once it is brought on line, the obsolete and worn-out sintering plant No 4 will finally be decommissioned. The implementation of this project will enable us to significantly reduce our negative impact on the environment, reduce emissions of dust and sulphur dioxide, as well as the discharge of suspended solids into our closed-circuit water supply system. By reducing the impact of harmful production factors, we will also be able to significantly improve working conditions for our employees.

The next stage in upgrading the first phase of processing will involve the modernisation of coke and byproduct production. In October last year, MMK signed a memorandum of intent and mutual cooperation with Sinosteel Equipment & Engineering Co for the implementation of a project involving the comprehensive reconstruction of coke and byproduct production facilities at the Magnitogorsk site. The project involves the construction of coke-oven battery No 12, reconstruction of a chemical byproduct capture and processing plant, as well as the construction of a biochemical unit. The facility will have a production capacity of 2.5 million tonnes per year of gross dry coke. Once launched, five older units will be phased out. As a result, gross emissions of pollutants will be drastically reduced, including through the use of state-of-the-art technologies for coke dry quenching.

In addition, the reconstruction of the Company’s rolled-steel production facilities continues. A contract was signed in 2018 with SMS Group GmbH for the supply of equipment for the reconstruction of the finishing stands for Hot-Rolling Mill 2500 at Rolling Mill No 4. Another contract was signed last year with Danieli & Officine Meccaniche S.p.A. for the modernisation of the 170 double-thread mill in MMK’s long products shop.

**Environmental responsibility**

In terms of initiatives aimed at reducing our negative impact on the environment, we must also mention our large-scale water preservation project involving the expansion of the cooler tank in our closed-circuit water supply system, which was completed in the autumn of 2018. This is one of MMK’s most important initiatives in terms of protecting the surface waters of the Magnitogorsk reservoir and the Ural River. At a total cost of about RUB 650 million, this initiative will reduce the volume of discharged waste water by 91% and the amount of pollutants discharged by 86%. As a result, the Magnitogorsk reservoir will be isolated as much as possible from the impact of waste water from MMK. The initiative also involves the gradual stocking of the Ural River with juvenile carp, the first of which have already been released into the reservoir.

MMK’s environmental protection efforts have been praised on numerous occasions. Russian President Vladimir Putin noted these efforts in a letter of appreciation sent to the Company’s workforce during celebrations of Steelworker Day in 2018, making MMK one of five Russian companies to receive such an honour. In the World Wildlife Fund’s (WWF) rating of environmental responsibility among mining and metals companies in the Russian Federation, MMK was ranked among the best Russian companies in terms of environmental impact.

Another major project carried out in 2018 was the completion of upgrades to blast furnace No 1. In the course of the overhaul, technical upgrades were carried out, along with the dismantling and complete replacement of all the elements of the old furnace and the construction of the casting bed aspiration system and the bunker bridge. In addition, a slurry enrichment installation was put into operation at Slurry Storage Facility No 2 in the ore-dressing workshop at MMK’s mining and processing facilities. This made it possible to increase the percentage of MMK’s own iron ore raw materials in the feedstock used in sinter production,
while also significantly reducing the Company’s anthropogenic impact on the environment. A new air separation plant was put into operation at station No 5 in the oxygen shop to provide air separation products for the new continuous hot-dip galvanising line No 3. It should also be noted that MMK began designing new gas-cleaning units in 2018 for its electric arc furnaces.

**Strengthening market positions**

MMK continues to strengthen its position in the market for high-margin HVA products. One of our strategic objectives in terms of the development of this area is to consolidate our presence in promising market niches. In 2017, the Lysva Metallurgical Company—the only manufacturer of electrogalvanised rolled steel in Russia and the country’s first manufacturer of rolled products with a polymer coating using Print technology—became part of MMK Group. This enabled the Group not only to become the largest producer of galvanised and coated steel in Russia but also to significantly expand its product range. The unique SteelArt polymer product produced by the plant was highly praised by the jury in the Priority 2018 import substitution national competition, which name MMK the winner in the steelmaking category.

Rolled steel for the automotive industry is a strategic product for MMK. As of today, Magnitogorsk is the leading supplier of metal products to the Russian automotive industry. In 2018, MMK managed to increase supplies to foreign automakers in Russia by 28%. Last year, MMK produced more than 500 new tailor-made items and components thereof for specific brands at the request of car manufacturers. As of the end of 2018, the plant had set another record for steel supplies to the automotive industry: 550 thousand tonnes. Together with our Turkish partners, we opened a new steel service centre in Tatarstan called MMK-Coşkunöz-Alabuga, which is focused on the production of steel billets used for the manufacture of automotive parts. The service centre has a production capacity of up to 60 thousand tonnes per year.

As part of the development of our Magstrong product line, 12,399 tonnes of products under this brand were shipped in 2018, 130% more than in 2017. At the same time, 287 different companies bought our rolled steel products in 2018, up from 138 companies a year earlier. In 2019, MMK plans to maintain the trend towards increased sales of high-strength steels in the Russian market.

**Commitments and achievements**

MMK is the main employer in the city of Magnitogorsk and one of the largest taxpayers in the Chelyabinsk Region. Aware of the degree of its social responsibility, the Company's management aims to treat the Company's employees and all residents of Magnitogorsk in a socially responsible way.

In 2018, the MMK Group’s expenditures for charity and social programmes increased by 11% y-o-y, reaching almost RUB 2.5 billion. A key place among the Group’s numerous social programmes is occupied by initiatives related to the health of employees and their families.

In 2018, MMK won the 15th industry competition for the social performance of mining and steelmaking companies and was among the winners of the Leaders of Russian Business: Dynamics and Responsibility national competition, taking a top spot in the Human Resources Development category.

MMK received high marks from the professional community for more than its environmental and social activities. For example, the Company won a national IT Leader prize in 2018 and was awarded a prestigious international prize for outstanding achievements in energy management and a gold medal at the Metal-Expo International Industrial Exhibition.

We have worked hard and achieved a great deal in recent years, and I am confident that MMK will continue to move forward and remain ahead of the game. We have everything we need to accomplish this: positive experience in solving the most challenging problems, state-of-the-art equipment and technologies, strong competitive positions, the ability to
produce high-quality and commercially successful products and, most importantly, highly qualified personnel.

I would like to express my sincere gratitude to the Company's shareholders and partners, as well as all of the staff of MMK and Group companies for their trust, professionalism and fruitful cooperation in finding solutions to the challenges we face.

Chairman of the Board of Directors
of PJSC MMK

Victor Rashnikov
MMK in 2018

MMK is one of the world’s largest steel producers and a leading Russian metals company.

The Company’s operations in Russia include a large steel-producing complex encompassing the entire production chain, from iron-ore processing to downstream production of rolled steel.

MMK’s output includes a broad range of steel products with a predominant share of HVA products.

### Key results for 2018

<table>
<thead>
<tr>
<th>MMK Group steel</th>
<th>MMK Group revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.7 million tonnes</td>
<td>USD 8.214 billion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMK Group steel products</th>
<th>EBITDA</th>
</tr>
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<tbody>
<tr>
<td>11.7 million tonnes</td>
<td>USD 2.418 billion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cash cost of slab, USD/tonne</th>
<th>EBITDA margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>291</td>
<td>29.4%</td>
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<table>
<thead>
<tr>
<th>Share of HVA products across the Group</th>
<th>Group net debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.5%</td>
<td>USD -203 million</td>
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</table>

<table>
<thead>
<tr>
<th>Market share in Russia</th>
<th>Steel production capacity utilisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.5%</td>
<td>94%</td>
</tr>
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</table>

### Position in the Russian steel market

**No 1**

*(According to the Metal Expert News Agency)*

### Awards, achievements and key events in 2018

**January**

- MMK was ranked by the WWF among the 10 most environmentally responsible metals and mining companies in Russia in 2017. MMK ranked eighth on the list, which was the best result among steelmaking companies in Russia.
- Cold-Rolling Mill 2000 produced its 10 millionth tonne of rolled steel.
- MMK concluded an investment contract with Danieli & Officine Meccaniche S.p.A. for the modernisation of the 170 double-thread mill in MMK’s long products shop

**February**
• Moody's rating agency raised MMK's credit rating to investment level (from Ba1 to Baa3, with a positive outlook).
• MMK concluded a contract with SMS Group GmbH for the supply of equipment for the reconstruction of the finishing stands for Hot-Rolling Mill 2500 at Rolling Mill No 4. According to the terms of the contract, equipment is to be supplied over a period of three years. The overhaul of the mill is part of MMK's long-term strategic programme and is aimed at upgrading the work of the finishing stand, in particular improving the automated process control system.
• MMK was one of the winners of the Leaders of Russian Business: Dynamics and Responsibility national competition, which is held annually by the Russian Union of Industrialists and Entrepreneurs. MMK was the winner in the Human Resources Development category.

April
• MMK's long-products mills reached a new production milestone: 20 million tonnes of hot products produced thanks to the Company's overhauled production facilities.

May
• In the Republic of Tatarstan, an official ceremony was held to mark the launch of the new MMK-Coşkunöz-Alabuga steel service centre. This is a joint project between MMK and Coşkunöz-Alabuga, a manufacturer of pressed steel parts for the automotive industry. The service centre is located in the Alabuga special economic zone, Russia's largest special economic zone for industrial manufacturing. MMK-Coşkunöz-Alabuga produces steel billets (bars) used for manufacturing auto parts. The service centre, which has a production capacity of up to 60 thousand tonnes per year, will provide the full production cycle for Russian and foreign automobile manufacturers located in Russia, in particular in the Volga and Ural regions. The centre's potential customers include Ford, Kamaz, Kamaz-Daimler, ARNPO, Nissan, Avtofaz, GM-Avtovaz, UAZ, GAZ and other companies.
• MMK was awarded a prestigious international award for outstanding achievements in the field of energy management in 2018 from the Clean Energy Ministerial.
• At the 16th national IT Leader awards, MMK was named the winner for the steelmaking industry. The award recognised MMK's achievements in terms of its use of state-of-the-art, high-performance information technologies. The jury gave high marks to a large-scale initiative to update the software infrastructure used by MMK Group, which unites more than 60 different companies. As part of this initiative, MMK established a specialised data centre and created a software and hardware system that enables it to provide centralised access to information systems.

July
• Russia's President commended MMK's environmental efforts in a letter of appreciation sent to the Company's workforce during celebrations of Steelworker Day. “Thank you for your valuable contribution to the preparation and holding of events for the Year of the Environment in the Russian Federation”, reads the letter. MMK was one of five Russian companies to receive such an honour.
• In the blast furnace shop, upgrades to blast furnace No 1 were completed. The overhaul involved a technical upgrade that required the complete dismantling and replacement of all the elements of the old furnace. For the first time in MMK's history, a part of a furnace was outfitted with copper horizontal cooling plates designed by Danieli Corus.
• In addition, a slurry enrichment installation was put into operation at Slurry Storage Facility No 2 in the ore-dressing workshop at MMK's mining and processing facilities. This made it possible to increase the percentage of MMK's own iron ore
raw materials used in the feedstock for sinter production, while also significantly reducing the Company's anthropogenic impact on the environment.

- A new air separation plant was commissioned at station No 5 in the oxygen shop. The need to increase capacity for the production of air separation products arose in connection with the construction and launching of the new continuous hot-dip galvanising line No 3.
- MMK won the 15th industry competition for the social performance of mining and metals companies.

**August**

- MMK built a waste treatment plant in Kuzbass. The plant was put into operation at the Kostromovskaya Mine, which is part of MMK-Ugol, and celebrated its 10th anniversary in August. MMK-Ugol's investment in the multistage project will amount to more than RUB 310 million.

**September**

- MMK Group developed its first software-based robot, which is able to perform the actions of a real person working at a computer. The robot was created by specialists from MMK-Informservice’s (an MMK Group company) Centre of Excellence for Robotic Process Automation (RPA) and Innovation based on innovative RPA technology. The robot was developed to organise effective interaction between MMK's commercial division and suppliers of scrap metal, and it has already been put into commercial operation. It processes incoming e-mails from suppliers, performs searches in Russian Railways databases to check the status of freight cars dispatched to MMK, informs specialists from the commercial division about the results of inspections and generates reports for MMK's various specialist services. The software has been performing its tasks successfully, while reducing the time required to carry out certain operations and eliminating human error.

**October**

- MMK was one of the winners in the Leaders of Competitive Procurement national competition. MMK was awarded for the best initiative in modernising procurement business processes.
- A project was launched at MMK that allows both city residents and non-residents to visit the Company's production site. Several tour routes were opened up for tourists.
- MMK and the Chinese company Sinosteel Equipment & Engineering Co signed a memorandum of intent and mutual cooperation for the implementation of a project involving the comprehensive reconstruction of MMK's coke and byproduct production facilities. The project involves the construction of coke-oven battery No 12, reconstruction of a chemical byproduct capture and processing plant, as well as the construction of a biochemical unit at the coke and byproduct plant.

**November**

- MMK was the winner of the 24th Metal-Expo International Industrial Exhibition in 2018. MMK was awarded a gold medal for the development and implementation of an information system for production logistics that enables the Company to significantly increase productivity.
- MMK was the winner in the steelmaking category in the Priority 2018 import substitution national competition. The jury gave high marks to the unique SteelArt polymer product produced at the Lysva Metallurgical Company, which is part of MMK Group.
- MMK completed the implementation of a large-scale water preservation project: a complex of hydraulic structures was built in the area of the Magnitogorsk reservoir as part of an overhaul of MMK’s closed-circuit water supply system. The overhaul,
which involved the expansion of the cooler tank, is one of MMK’s most important initiatives in terms of protecting the surface waters of the Magnitogorsk reservoir and the Ural River. It will reduce the volume of discharged waste water by 91% and the amount of pollutants discharged by 86%. As a result, the Magnitogorsk reservoir will be isolated as much as possible from the impact of waste water from MMK.

December

- In its ranking of environmental responsibility among mining and metals companies in the Russian Federation, the WWF rated MMK as one of the best companies in terms of its environmental impact. The ranking was initiated by WWF Russia and the United Nations Environment Programme.
Market trends for raw materials and rolled steel

According to preliminary data from the World Steel Association (WorldSteel), global consumption of rolled steel increased in 2018 by 3.9% y-o-y to 1,658 million tonnes.

**Demand for rolled steel**

The steady growth trend seen over the last three years is the result of demand in every key region: Asia, the CIS, the European Union, the Middle East and North America.

Consumption of rolled steel in Asia increased by 5% y-o-y in 2018 to 1,118 million tonnes. In the CIS, market capacity increased by 1.4% y-o-y to 55 million tonnes. The European Union showed a steady recovery in demand for rolled steel with an increase of 2.2% y-o-y to 167 million tonnes. The Middle East improved its performance by 2.1% y-o-y to 55 million tonnes. NAFTA countries also showed market capacity growth of 1.7% y-o-y to 143 million tonnes.

**Steel production**

According to WorldSteel, global steel production increased in 2018 by 4.6% y-o-y to 1,809 million tonnes.

As has traditionally been the case, the top producers were from Asia, with total production of 1,271 million tonnes (up 5.6% y-o-y). China increased its production by 6% y-o-y to 928 million tonnes. China moved in 2018 from its policy of reducing excess and obsolete capacity to stricter emissions requirements, including in the steelmaking industry. Some Chinese steelmakers were able to bring their production into line with the new requirements in 2018 and were thus exempted from the need to reduce capacity during a period of adverse weather conditions.

The rapidly developing Asian countries of India and Vietnam continued to build their own steelmaking facilities, thus making a significant contribution to the growth of production in Asia. India showed an increase of 4.9% y-o-y to 107 million tonnes in 2018, while Vietnam was up 14.2% y-o-y to 24 million tonnes.

South Korea increased production by 2% y-o-y to 73 million tonnes. Japan, having been surpassed by India, dropped to third place in terms of the world's largest producers, producing 104 million tonnes of steel in 2018 (down 0.3% y-o-y).

The European Union also reduced production by 0.3% y-o-y to 168 million tonnes. According to the European Steel Association, European steelmakers were unable to take advantage of increased demand in the EU's internal rolled-steel market in 2018. This growth in demand was mainly satisfied by imports from non-EU countries, which increased by 12.3% y-o-y.

North America showed a 4.1% y-o-y increase in steel production to 121 million tonnes. The driver of this growth was the 6.2% y-o-y increase in US production to 87 million tonnes. The introduction of a 25% tariff on steel imports plus additional tariffs on imports of metal products from China created favourable conditions for production growth in the domestic steelmaking industry. The indicative utilisation of steelmaking capacity in the United States exceeded 80% in some months of 2018 for the first time since 2014.

North America showed a 4.1% y-o-y increase in steel production to 121 million tonnes. The driver of this growth was the 6.2% y-o-y increase in US production to 87 million tonnes. The introduction of a 25% tariff on steel imports plus additional tariffs on imports of metal products from China created favourable conditions for production growth in the domestic steelmaking industry. The indicative utilisation of steelmaking capacity in the United States exceeded 80% in some months of 2018 for the first time since 2014.

The Middle East increased steel production by 5.5% to 73 million tonnes. Iran was the leader in terms of growth rate in the region, up 17.7% y-o-y to 25 million tonnes. Despite the resumption of US sanctions in 2018, Iran continued its ambitious programme to increase its steelmaking capacity. Turkey, which by the end of 2018 had not managed to rebound from the impact of the sharp devaluation of its national currency in August, produced 37 million tonnes of steel (down 0.6% y-o-y) during the year, maintaining the level of its record output of 2017.
Commodity markets

The competitiveness of Russian steelmaking companies continued to improve in 2018 due to a strong increase in prices for metal products (in absolute terms) compared to prices for basic raw materials. In addition, every company in the Russian steel industry continued to reduce costs, while introducing state-of-the-art lean production processes.

It is also worth noting that prices for raw materials in Russia follow global markets and export parity prices with a certain time lag, which also improves the competitiveness of Russian steelmakers during periods of rising raw-materials costs in comparison with a number of global competitors. At the same time, the trend of increasing profitability ended in late 2018 as the cyclical peak in global steel prices came to an end.

Global prices for raw materials for the steelmaking industry remained volatile in 2018, but they were traditionally at fairly high levels at both the beginning and end of the year. In average annual terms, there was little change in global prices for basic raw materials in 2018 compared with the year before. The base price for iron ore (62% Fe) remained at around USD 70/tonne (a decrease of 2% y-o-y). Spot prices for coking coal increased by around 10-15%, depending on the grades, while the average price of coal under long-term contracts remained almost unchanged in 2018.

An important factor behind the increase in prices for raw materials and rolled steel in international markets in 2018 was the acceleration of global economic growth, which was positively reflected in growth in steelmaking capacity utilisation. Steady growth in steelmaking in China also helped prop up prices. The profitability of the largest steelmaking companies in China continued to rise together with sharp growth in domestic consumption. Steel exports from China remained limited, thus ensuring fairer competition in international markets, which was especially important against the background of a reduction in the sale of metal products in markets throughout the world as a result of numerous barriers.

MMK is among the leaders in terms of the global cost curve for the production of hot-rolled coils. Thanks to its policy of increasing operational efficiency, the Company holds strong positions not only in the Russian market for rolled steel but also in export markets.
In 2018, the global average prime cost of hot-rolled coils increased by 7.7% y-o-y to USD 473/tonne.

**Global markets**

Exports of metal products by the world’s two largest exporters, China and Japan, continued to decrease in 2018. Exports from China decreased by 8.1% y-o-y to 69 million tonnes, while exports from Japan decreased by 4.2% y-o-y to 37 million tonnes. The decline in exports is due to steady domestic demand for rolled steel and increased protectionism around the world.

At the same time, Russian exports increased by 3.1% y-o-y to 28.8 million tonnes. The decline in exports by Asia’s major players provided the impetus for consumers in Southeast Asia to purchase Russian steel instead.

Turkish steelmakers increased exports by 20.8% y-o-y to 21 million tonnes, including a 43% y-o-y increase in flat products to 6 million tonnes. The demand for Turkish flat products in the EU in the first half of 2018 remained stable in anticipation of the introduction of European import quotas. In addition, exports supported the production of rolled steel in Turkey during a period of falling domestic demand in 4Q 2018.

**Prices for rolled steel in international markets**

Average annual global prices for rolled steel rose again in 2018. Restricting the utilisation of steelmaking capacities in China in the winter of 2017/2018 led to a decrease in the supply of rolled steel in global markets and a relatively high price in the first half of 2018. In August, under pressure from the continued growth of protectionism and trade friction between the US and China, the prices for rolled steel decrease and stabilised by the end of 2018.

Despite a decline in prices in the second half of the year, China's market for rolled steel became more balanced with respect to supply and demand compared to previous years. From 2016 through 2018, 150 million tonnes of obsolete capacity was decommissioned in China, and 140 million tonnes of illegal induction furnaces were also closed. It is worth noting...
that 85 million tonnes of new steel production capacity was put into operation during the period under review; nevertheless, the net capacity taken out of service amounted to 205 million tonnes. Exports of rolled steel from China declined for the third consecutive year, which played a role in propping up global prices for rolled steel despite fluctuations in 2018.

In the United States in the first half of 2018, the prices for metal products rose sharply as a result of speculative demand stemming from the introduction of a global 25% tariff on steel imports. By July, prices had reached four-year highs, after which they dropped to the same level as at the beginning of the year. The US market for metal products was overheated, as there was not enough genuine demand to maintain high prices over a long period.

The European Union was not able to stimulate such a significant increase in prices by introducing quotas on imported steel from non-EU countries. Quotas for flat products turned out to be rather soft, as no shortage of imported rolled steel into the market was observed. European steelmaking was characterised by a high level of mergers and acquisitions in 2018, as the main players consolidated their positions, while refraining from sharp increases in prices for rolled steel in order to avoid difficulties from antimonopoly authorities.

Turkey’s market for rolled steel fluctuated in 2018 in line with price changes in global markets. The EU market remained open to Turkish manufacturers, which, in the absence of competition from China and Russia, were able to improve their market positions and to a large extent shape prices in their domestic market through export parity pricing. The situation worsened in August after the weakening of the national currency and a sharp increase in the key rate of the Central Bank of Turkey. The demand for rolled steel in the domestic market decreased, but the average annual price level for hot-rolled coils in Turkey remained higher in 2018 than the year before.

**Russia**

By and large, prices for rolled steel in the Russian market in 2018 continued to follow trends in global markets. Prices in the domestic market followed the upward trend in world prices in the first half of the year before seeing a decrease in the second half of the year. Overall, by the end of 2018, the average price in the Russian market was higher than in 2017.

According to Platts, the average annual price in the Russian market for hot-rolled coil increased by 0.5%, while the price of rebars was up by 2.4%.

Prices in the Russian domestic market remain favourable compared to exports thanks to state-of-the-art equipment and technologies that enable Russian steelmakers to compete with international peers, a large share of HVA products and the provision of additional services to Russian customers.

**Trends in metal consumption in the Russian market**

The Russian market for metal products showed a slight improvement in 2018. The main growth in industrial production in 2018 was again led by export-oriented mining industries. Growth in other sectors continued to depend on state support, foreign policy and sanctions on the part of Western countries. According to Rosstat, Russia’s GDP grew by 2.3%
in 2018 compared with the previous year, while industrial production increased by 2.9%. According to Metal Expert, steel production in Russia amounted to 72.1 million tonnes in 2018 (up 0.8% y-o-y), while the production of rolled steel (excluding re-rolled products) reached 67.4 million tonnes (up 2.1%).

According to Metal Expert, the apparent consumption of rolled steel in the Russian Federation amounted to 44 million tonnes (up 0.9% y-o-y). This moderate growth in the Russian steelmaking industry in 2018 was the result of the unfavourable impact of both external and internal factors. The situation for Russian exporters of steel products deteriorated significantly in 2018 due to the crisis in Turkey and the introduction of import quotas in the EU. Domestic demand was limited due to low economic growth and stagnation in the construction sector.

**Pipe industry**

According to Metal Expert, gas production increased by 5.2% in 2018, while oil production was up 1.7% y-o-y. Production of welded pipes remained virtually unchanged in 2018 at 8.0 million tonnes. An increase could be seen only in the production of general-purpose pipes, which was up 9.6% to 1.06 million tonnes, the volume of large-diameter pipes (LDP) remained at 2.6 million tonnes (up 0.2%).

Apparent consumption of welded pipes in Russia decreased by 1.9% to 6.8 million tonnes. According to Metal Expert, consumption of LDPs in Russia in 2018 increased slightly, by 0.9% y-o-y to 1.8 million tonnes.

In 2018, MMK supplied the pipe industry with 2.013 million tonnes of rolled steel (up 26% y-o-y).

**Automotive manufacturing**

Automotive manufacturing was the fastest-growing Russian industry in 2018. According to an analytical survey by ASM-Holding, the production of passenger vehicles increased in 2018 by 15.9% y-o-y to 1,563 thousand units, buses increased by 12.5% to 47.8 thousand units, while truck production decreased by 2.6% to 157 thousand units.

The basis for growth in the past year was the increase in consumer demand in anticipation of a VAT increase, the recovery in car loans, state-run preferential loan programmes (First Car and Family Car) and export support.

In 2018, MMK shipped 549.4 thousand tonnes of metal products to automakers (up 4% from 2017).

**Railroad machinery**

Production continued to increase in the carriage-building industry in 2018. According to Rosstat, 68.9 thousand freight carriages were produced, an increase of 18.7% compared to 2017, while 1.5 thousand passenger carriages were built, up 58.3% from the previous year. The main drivers of this growth were the increase in freight volumes in the Russian Railways network, an increase in lease rates, government support for the production of passenger carriages and the continued write-off of outdated fleet.

In 2018, MMK supplied 474 thousand tonnes of rolled steel to railway manufacturers (up 29% y-o-y).

**Construction industry**

The housing sector was unable to show any production growth in 2018. According to Rosstat, the volume of housing construction in Russia decreased by 4.9% in 2018 to 75.3 million square metres. The main reasons for the decrease were the exhaustion of deferred demand in anticipation of an expected price increase after the change in VAT, as well as currency fluctuations; completion of major infrastructure projects (preparation for the World Cup) and the introduction of amendments to Federal Law 214-FZ on Shared-Equity Construction (1 July 2018) (preparations got under way to start using project financing in the
market). The decline in individual housing construction was due to an extension of the so-called dacha amnesty programme and an increase in mortgage rates.

In connection with the general decline in the construction industry in 2018, MMK’s deliveries also decreased by 12% y-o-y, amounting to 636 thousand tonnes.

**MMK’s position in the industry**

MMK ranks among the world’s 30 largest steel producers. Among Russian steelmakers, MMK firmly occupies a niche and has consistently ranked in the top three in recent years, maintaining its share of around 17% of the Russian market. MMK is well positioned to achieve good profitability thanks to its advantageous geographical location in the Russian market and its wide range of products, including high-margin steel products.

![Structure of Russian steel production in 2018](image)

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16
In the structure of the Russian market for steel products in 2018, there was a significant reduction in the growth rate of import volumes, which rose only 0.4% y-o-y. According to Metal Expert, the share of imports in the Russian market remained virtually unchanged at 12.8%. Growth in imports could only be seen in the long products segment, which increased by 4%; for the other types of rolled steel, supplies decreased y-o-y. This was due to a slight rise in apparent consumption in the Russian Federation, growth in domestic supplies from Russian manufacturers, the weakening of the rouble against the dollar and an accident at ArcelorMittal Temirtau (Kazakhstan) that occurred in early November 2018.
**MMK Group's development strategy, priorities and achievements**

**Vision:** MMK Group is a highly efficient Russian metals producer that adheres to best practices for occupational health and environmental safety and ensures the retention of professional, proactive and motivated personnel while focusing on meeting the needs of customers in the Russian market.

**MMK Group mission**

The Company strives to be a reliable supplier of high-quality steel products, satisfying the needs of Russian customers with the aim of developing into a world leader in terms of efficiency, generating value for shareholders and improving the quality of life of our employees and the people in the communities where our assets are located.

**Strategic objective**

MMK Group aims to be one of the world’s top steelmakers in terms of both production volume and total shareholder return (TSR).

These goals can be achieved by meeting key challenges in the Company's six priority focus areas.

**MMK Group Strategy**

<table>
<thead>
<tr>
<th>Priority Focus Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Strengthening of positions in priority markets</td>
</tr>
<tr>
<td>2. Improving operational and functional efficiency</td>
</tr>
<tr>
<td>3. Increasing investment attractiveness</td>
</tr>
<tr>
<td>4. Safe production</td>
</tr>
<tr>
<td>5. Development of professional personnel</td>
</tr>
<tr>
<td>6. Social strategy</td>
</tr>
</tbody>
</table>

Our strategy is aimed at satisfying the needs of our customers and quality growth, while improving operational and functional efficiency, as well as the investment attractiveness of our business.

We work to create value and ensure sustainable development. Working closely with our stakeholders, we take their needs and expectations into account and respond to their feedback.

As part of the implementation of our strategy, we have identified six priority areas in which we are working to achieve our strategic goals, including through the implementation of programmes of activities related to the initiatives contained in our Portfolio of Strategic Initiatives.

**Value creation for the Company**

1. *Strengthening of positions in priority markets.*
Our sales policy is focused on the domestic market, which is the Company’s strategic position. Taking into account the current and future needs of our customers, we are developing new types of products and introducing new technologies that are focused as much as possible on meeting customer demand.

In 2018, 67.5% of MMK’s steel products were sold to the Russian market. As has traditionally been the case, the Ural and the Volga regions were the largest buyers, accounting for 63% of MMK’s domestic sales.

The production of HVA products (Thick Sheet Mill 5000, cold-rolled steel, products resulting from downstream processing) is a priority for the Company: in the reporting year, we shipped 4.4 million tonnes of these products.

In the future, in the event of surplus supply in limited markets, the most competitive companies will be those that are now investing not in expanding capacity but in improvements to overall efficiency and the development of niche products. We are focused on consolidating MMK in promising market niches.

An important step in this direction was the addition of the Lysva Metallurgical Company to MMK Group in 2017. This allowed the Group not only to become the largest producer of galvanised steel and coated steel in Russia but also to significantly expand its product range. Growth in the production of coated steel products is in line with MMK’s strategic aim of increasing its output of high-margin products.

MMK has also been successfully implementing a programme involving the production and promotion of high-strength and wear-resistant steels manufactured under the Magstrong brand. These are import-substituting products that have a fairly wide range of applications and surpass similar imports in several parameters.

Another important area for us is to increase our supply of steel products for the automotive industry. As of the end of 2018, approximately 550 thousand tonnes of steel products were delivered to automakers. Together with our Turkish partners, we opened a new steel service centre in Tatarstan called MMK-Coşkunöz-Alabuga on 14 May 2018. The service centre is focused on the production of steel billets used for the manufacture of automotive parts. With a production capacity of up to 60 thousand tonnes per year, the centre will provide the full production cycle for Russian and foreign automobile manufacturers located in Russia, in particular those located in the Volga and Ural regions.

In 2018, we continued implementing our strategic initiatives Deliveries on Time and Supplier No 1 for the Most Demanding Customers in the Domestic Automotive Industry, which we are implementing as part of our approved strategy. As a result, as of the end of 2018, there was a high degree of customer satisfaction with the quality of products and services delivered. We regularly interact with our customers, and we aim to respond to their requests as much as possible and to meet their expectations in terms of quality, service and delivery time.

The consolidation of MMK’s presence in the domestic market has also been facilitated by the development of our Torgovy Dom distribution network. In 2018, Torgovy Dom’s share of the Russian metal warehousing market was 8.8%, with 66.1% of sales made directly to end users. Torgovy Dom’s main task involves the sale of steel products produced by MMK and other Group enterprises (MMK-Metiz, the Lysva Metallurgical Company) from storage facilities located in various regions of Russia and in the Republic of Kazakhstan.

2. Improving operational and functional efficiency.

We have been implementing a programme to improve operating efficiency for a number of years. As part of the programme, cost-cutting measures have been developed and are being implemented in all of the Company’s production and functional departments. The following were the main areas of cost reduction in 2018:
• the implementation of organisational and technical measures aimed at improving the efficiency of production processes and reducing the consumption of raw and basic materials, which enabled to achieve additional profit in amount USD 39.8 million;
• the introduction of low-cost, high-impact investment projects (Baby Capex), the economic impact of which was USD 14.4 million for the year;
• invention and innovation brought an additional USD 7.2 million in savings; and
• the implementation of energy-saving measures resulted in an additional USD 8.7 million in savings.

Strict monitoring of the use of resources and the search for internal efficiencies to reduce costs enabled MMK to reduce the negative impact of market factors and ensure the competitiveness of its products.

In accordance with the approved Strategy to Improve Operational and Functional Efficiency, we continue to implement our Lean Production and Deliveries on Time strategic initiatives.

In 2018, we continued implementing projects through our investment programme:
• in terms of our sintering, coking and blast-furnace production capacity, construction of our new sintering plant No 5 continued, with its launch scheduled for mid-2019; blast furnace No 1 was rebuilt, and coal-bridge driver No 5 was been replaced in the coke and byproduct production facilities;
• the reconstruction of Hot-Rolling Mill 2500 continued;
• among the energy-related initiatives launched in 2018, the commissioning of an air separation unit (ASU) at oxygen station No 5 is worth noting;
• among those initiatives involving the construction of environmental protection facilities, the reconstruction of the Company’s closed-circuit water supply system was completed with the expansion of the cooling reservoir and the construction of a dam to separate the natural reservoir from the water supply system. As a result, waste water from MMK is no longer being discharged into the Magnitogorsk reservoir. This conservation project involved not only the construction of a hydraulic structure but also the restocking of the Magnitogorsk reservoir on the Ural River, which will help restore the ecological balance in the reservoir’s aquatic area.

These projects will cut our prime cost and significantly reduce the impact of our operations on the environment.

In the reporting year, MMK was the winner of the 24th Metal-Expo International Industrial Exhibition. The Company was awarded a gold medal for the development and implementation of an information system for production logistics.

The system is a joint project between MMK and the Ausferr Technological Research Centre. The automated operational scheduling system is an important element of the "just-in-time" logistics concept, which involves the complete coordination of work to manufacture products and makes it possible to produce and deliver any goods to customers within a predetermined time frame, while also ensuring savings by reducing variable costs and storage services.

The Industry 4.0 strategic initiative succeeded the earlier Big Data project. Its main tasks are the expansion of operational scheduling and production management, improvement of product quality, customer satisfaction and the reduction of transaction costs.

All these innovations have enabled MMK to get as close as possible to its customers and to offer them the best solutions.

3. Increasing investment attractiveness.
An important priority for the Company is to increase its investment attractiveness, which in turn contributes to increased market capitalisation and an increase in the value of its assets.

In 2018:

- work continued to reduce the Company’s debt burden: Gross debt/EBITDA was 0.22x;
- the Russian Institute of Directors (RID) confirmed MMK’s national corporate governance score at 7++ (developed corporate governance practice) on the National Corporate Governance Rating scale.
- dividends were paid regularly:
  - on 1 June 2018, the Annual General Shareholders' Meeting approved the payout of dividends at RUB 0.806 per share for the 2017 reporting period;
  - on 13 June 2018, an Extraordinary General Shareholders' Meeting decided to pay out dividends for the first quarter of the 2018 reporting year in the amount of RUB 0.801 per share;
  - on 28 September 2018, an Extraordinary General Shareholders' Meeting decided to pay out dividends for the first half year of the 2018 reporting year in the amount of RUB 1.589 per share;
  - on 7 December 2018, an Extraordinary General Shareholders' Meeting decided to pay out dividends for the first three quarters of the 2018 reporting year in the amount of RUB 2.114 per share;
- all the measures stipulated in the Corporate Governance Improvement Programme for 2018 were implemented.

A minimal debt burden and high liquidity, combined with operating efficiency, were the basis of S&P's decision in December 2018 to assign MMK long- and short-term credit ratings of BBB- / A-3 with a stable outlook (ratings of BBB- and A-3 indicate that the Company's shares offer good investment potential).

**Sustainable development**

We set goals for ourselves and work to further improve the Company's sustainability by enhancing industrial safety, developing personnel, strengthening partnerships in the region where the Company operates and reducing our environmental impact.

**4. Industrial safety**

Industrial safety is one of our Company's top strategic priorities. Much attention is focused on improving our systems for industrial safety and occupational health and the formation of a conscientious and unwavering stance against violations on the part of our employees.

Our system to ensure occupational safety operated in four main areas in 2018:

1. We identify and eliminate hazards
2. By teaching, we engage staff
3. We work with violators
4. We evaluate our work

As part of our efforts to ensure industrial safety, we are implementing a strategic initiative called “Zero Tolerance for Safety Violations”. We are striving to achieve leading positions among Russian companies in terms of industrial safety.

In August 2018, MMK's Occupational Health and Industrial Safety Management System was audited for compliance with OHSAS 18001:2007.

**5. Development of professional personnel.**
Concern for our workforce and the health of personnel is one of the Company’s priorities. The implementation of our personnel policy, systematic work with personnel and continuous training have helped boost labour productivity and improve the professional development of employees. In 2018, labour productivity increased by 2.2% y-o-y and reached 68.2 conditional tonnes per employee.

An important factor in the Company’s successful operations is the availability of professional staff whose aim is to achieve corporate goals. In terms of the development of professional personnel, we have been implementing a strategic initiative called “Involving Human Resources Potential in Improving MMK’s Operational Efficiency”. For this, certain powers have to be delegated so that each employee has more decision-making opportunities and, at the same time, greater responsibility for the results of their work.


Together with the Government of the Chelyabinsk Region and the administration of the city of Magnitogorsk, we have been resolving the complex task of finding growth opportunities for small and medium-sized businesses, diversifying the city’s economy, attracting investments (including foreign investments), creating new jobs and improving living and recreational conditions for residents as part of a strategic initiative called Resolution of Problems Related to a One-Company Town.

In implementing this initiative, we work in the following areas:

- Creating conditions for the development of small and medium-sized businesses in the city. This is one of the Company’s socially important objectives. The main tool for fulfilling this goal is MMK-Industrial Park. All the resources need to start up any sort of production can be found in the Industrial Park. The services available to residents are being expanded as part of our “one-stop” initiative: during the reporting year, insurance, training and retraining of personnel were made available, and individual offers for banking services are provided. In addition, MMK’s management took a decision on the possible co-financing of projects implemented by residents of the Industrial Park.

- In December 2018, at Nosov Magnitogorsk State Technical University, within the framework of the federal special-purpose programme “Development of Education”, with the support of the governor of the Chelyabinsk Region and MMK, the Quantorium technology park for children was opened. MMK is the technology park’s industry partner.

- On 16 October 2018, industrial tourism at MMK officially got under way. The initiative is in keeping with the city of Magnitogorsk’s Strategy for Social and Economic Development for the period up to 2035. Since the start of the project, about 750 people have visited MMK’s industrial site.

- In our long-term planning and sustainable development, we devote a great deal of attention to the issues of environmental security and improving the system for managing environmental conservation. Implementation of the programme of activities under the Clean City strategic initiative continued in 2018, the goal of which is to achieve a comprehensive atmospheric pollution index of < 5 units (a low level of atmospheric pollution) in the city by 2025.

Improving the environmental situation and reducing air and water pollution remain among our strategic priorities. In accordance with our Environmental Programme, 69 technical measures of varying degrees of complexity were completed in 2018, and work on 15 of these measures will continue in 2019. The actual costs of the programme in 2018 amounted to RUB 6,463.8 million, including RUB 5,845.5 million for capital construction.

Thanks to the implementation of our Environmental Programme, we achieved a reduction in specific emissions of pollutants into the atmosphere, a 1% decrease in the discharge of specific pollutants into bodies of water and an increase in the recycling of tailings and slag to 10.7 million tonnes.
Customer satisfaction

MMK occupies a leading position in the supply of steel products for major industrial consumers in the domestic market, and the Company places a strong emphasis on developing customer relations. For this reason, continuous and ongoing efforts are made at our facilities to improve customer satisfaction with regard to both product quality and level of service.

Every year, MMK surveys automotive manufacturers and pipe producers, subsidiaries of Gazprom and other similar companies.

The results of the customer satisfaction surveys in 2018 were as follows:

<table>
<thead>
<tr>
<th>Level of consumer satisfaction</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned</td>
</tr>
<tr>
<td>- overall</td>
<td>7.60</td>
</tr>
<tr>
<td>- customers in automotive manufacturing</td>
<td>8.00</td>
</tr>
<tr>
<td>- customers in the pipe-making sector</td>
<td>7.60</td>
</tr>
<tr>
<td>- including Gazprom and its suppliers</td>
<td>8.00</td>
</tr>
</tbody>
</table>

The annual consumer survey shows a high degree of satisfaction. The survey is also helpful in identifying which customers have expressed a lower level of satisfaction with product and service quality.

In order to achieve high levels of customer satisfaction with MMK products and services, the following measures are being implemented:

- a programme of corrective measures aimed at responding to critical feedback received through the surveys;
- the establishment of coordination councils with key customers;
- the development of innovative products.
### MMK Group

#### PJSC MMK

**Mintha Holding Limited**
- Mintha Holding Limited
- LLC Altair
- Steelnet Services Limited

#### MMK - Production of Steel Products

- OJSC MMK-METIZ (Magnitogorsk)
- LLC Interkos-IV (Leningrad Region, Gorelovo)
- LLC MMK-Lysva Metallurgical Plant (Perm Territory, Lysva)
- MMK Metalurji Sanayi, Ticaret ve Liman İşletmeciliği Anonim Şirketi (Turkey, Iskenderun, Istanbul)

#### MMK - Torgovy Dom

- LLC Torgovy Dom MMK (Magnitogorsk)
- LLC Torgovy Dom MMK-Kazakhstan (Kazakhstan, Astana)

#### MMK - Resource

- LLC Belon (Belovo)
- LLC Vtorichnye Metally (Belovo)
- LLC MMK-UGOL (Belovo)
- JSC Bashkirskie Vtorichnye Metally (Ufa)
- LLC Sevvtormet-Noyabrskskoye (Noyabrsk)
- LLC Severo-Ural’skaya Transportnaya Kompaniya (Chelyabinsk Region, Kusa)
- LLC Lower-Ural’skaya Transportnaya Kompaniya (Chelyabinsk Region, Kusa)
- LLC Yuzhnyi Profktor (Chelyabinsk Region, Kusa)

#### MMK - Service

- LLC Mehanoremontny Kompleks (Magnitogorsk)
- LLC Stroitelnuy Kompleks (Magnitogorsk)
- LLC ATU (Magnitogorsk)
- LLC MMK-UCHETNY CENTER (Magnitogorsk)
- LLC MMK-PRAVO (Magnitogorsk)

#### MMK - Finance

- LLC MMK Finance (Magnitogorsk)
- LLC Region (Magnitogorsk)
- LLC MIG (Magnitogorsk)
- LLC Sanatoriial Metallurgical (Magnitogorsk)
- LLC Interlux (Magnitogorsk)

#### MMK - Kurort

- LLC Sanatoriia Ybileyny (Bashkortostan Zelenaya Polyana)
- LLC Abzakovo (Bashkortostan, Abzakovo)
- LLC Sanatoriul Metallurgical (Magnitogorsk)
- LLC Interlux (Magnitogorsk)
- LLC MMK-Kurort Management Company (Magnitogorsk)
MMK Group's financial results

Under the existing corporate governance structure and reporting policy, MMK Group’s financial results are divided into the following segments:

- the Russian steel segment, including MMK and its subsidiaries engaged in the production of steel, wires and metalware—all major assets, production capacity, management and administrative resources for this segment are situated in Magnitogorsk, Russia;
- the Turkish steel segment, which includes the steelmaking company MMK Metalurji—this segment's two production sites are located in Iskenderun and Istanbul, Turkey;
- and the coal segment, which includes Belon and MMK-Ugol, which are engaged in coal mining and processing.

This section provides a summary financial overview of MMK Group and its business segments.

Revenue and operating profit

The Russian steel segment accounts for the majority of MMK Group’s revenue (91.8%). The Turkish steel segment accounts for 7.5%. The coal segment accounts for just 0.7% of Group revenue due to the fact that the majority of this segment’s output is consumed within the Group.

<table>
<thead>
<tr>
<th>USD million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>8,214</td>
<td>7,546</td>
</tr>
<tr>
<td>Operating profit</td>
<td>1,833</td>
<td>1,455</td>
</tr>
<tr>
<td>EBITDA</td>
<td>2,418</td>
<td>2,032</td>
</tr>
</tbody>
</table>

The Group’s revenue for 2018 was USD 8,214 million, a 9% increase y-o-y. This growth was spurred by higher sales of steel products in addition to growth in the average sales price of USD 46 per tonne, or 8.0%. By the end of 2018, shipments to the domestic market and the CIS countries were up 3% y-o-y, accounting for 76% of total sales.

MMK Group's operating profit amounted to USD 1,833 million, an increase of 26% y-o-y.

Revenue and operating profit

[Graph showing revenue and operating profit over the years]

EBITDA grew by 19.0% y-o-y, a significant rise that was driven by higher product pricing relative to the increase in the cost of raw materials, an increase in the share of sales to the domestic market and an increase in the share of HVA products (to 46.5%) in the overall structure of the Company’s product range.
### Analysis of EBITDA, USD million

<table>
<thead>
<tr>
<th>Change</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA</td>
<td>2,418</td>
<td>2,032</td>
</tr>
<tr>
<td>Change</td>
<td>386</td>
<td></td>
</tr>
<tr>
<td>Production volume</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Product structure</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Product pricing</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td>Cost of raw materials, energy and services</td>
<td>-416</td>
<td></td>
</tr>
<tr>
<td>Specific consumption</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Raw materials and energy supply</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Overhead</td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td>Other expenses contributing to prime cost</td>
<td>-41</td>
<td></td>
</tr>
<tr>
<td>Other factors</td>
<td>-81</td>
<td></td>
</tr>
</tbody>
</table>

The cost of goods sold, including depreciation, increased by 3% y-o-y primarily due to a 4.4% rise in the cost of raw materials.

#### Structure of operational expenditures

![Structure of operational expenditures](image)

#### Earnings per share and dividend yield

Earnings per share came to USD 0.118, while dividends for 2018 amounted to USD 1027 million, representing a dividend yield (dividends to LSE capitalisation) of 14%.
Capital investments

Investments in fixed assets in 2018 amounted to USD 860 million for the year, which is in line with the current investment plan and envisages earlier completion of large investment projects compared to the original plans. The increase from the previous year is due to the fact that we are approaching the final stage in the construction of sintering plant No 5 and the start of design work for the construction of a coke oven battery.

<table>
<thead>
<tr>
<th>Investment, USD million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian steel segment</td>
<td>799</td>
<td>612</td>
</tr>
<tr>
<td>Turkish steel segment</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Coal segment</td>
<td>54</td>
<td>47</td>
</tr>
<tr>
<td>Group total</td>
<td>860</td>
<td>664</td>
</tr>
</tbody>
</table>

Cash flow

Cash flow from operations in 2018 amounted to USD 1,887 million (compared to USD 1,358 million in 2017).

In 2018, the cash flow from working capital for the Group was USD 62 million.

The Company's high profitability, working-capital efficiency and lower operating costs made it possible to increase free cash flow in 2018 by 48.0% y-o-y to US 1,027 million.

<table>
<thead>
<tr>
<th>Cash flow, USD million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flow from operations prior to changes in working capital</td>
<td>1,949</td>
<td>1,652</td>
</tr>
<tr>
<td>Changes in working capital</td>
<td>-62</td>
<td>-294</td>
</tr>
<tr>
<td>Cash flow from operations</td>
<td>1,887</td>
<td>1,358</td>
</tr>
<tr>
<td>Cash flow from investing activities</td>
<td>-848</td>
<td>-599</td>
</tr>
<tr>
<td>including capital investments</td>
<td>-860</td>
<td>-664</td>
</tr>
<tr>
<td>Free cash flow</td>
<td>1,027</td>
<td>694</td>
</tr>
</tbody>
</table>
Healthy cash flow generation enabled the Company to reduce its net debt over 2018 from a net cash balance of USD 12 million as of 31 December 2017 to a net cash balance USD 203 million as of 31 December 2018. Moreover, the Company had USD 739 million in cash and cash equivalents at the end of the reporting period.

MMK’s record EBITDA and the further decrease in the Group's net debt resulted in a net debt/EBITDA ratio of -0.08 as of 31 December 2018, compared to -0.01 at the end of 2017.

At the end of 2018, the Company's gross debt stood at USD 536 million, down by USD 8 million from the end of 2017.

MMK's equity capital amounted to USD 5,009 million.

<table>
<thead>
<tr>
<th>Capital structure and profitability</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total capital and obligations, USD million</td>
<td>7,205</td>
<td>7,924</td>
</tr>
<tr>
<td>Invested capital, USD million</td>
<td>4,776</td>
<td>5,474</td>
</tr>
<tr>
<td>Equity capital, USD million</td>
<td>5,009</td>
<td>5,497</td>
</tr>
<tr>
<td>Net debt, USD million</td>
<td>-203</td>
<td>-12</td>
</tr>
<tr>
<td>Return on invested capital, %</td>
<td>38</td>
<td>27</td>
</tr>
<tr>
<td>Return on equity, %</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>Asset/equity ratio, %</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
<td>Net debt/capital, %</td>
<td>-4.1</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

**Russian steel segment results**

Revenue is influenced by steel prices, demand for steel, sales volumes and exchange rates.

The segment's revenue in 2018 increased 8.5% y-o-y to USD 7,826 million due to higher sales volumes, improved structure of the product line and a favourable pricing environment in the Company's markets.

Operating profit was impacted not only by the factors mentioned above but also by production volumes and operating costs.
Operating profit increased by 28%.

<table>
<thead>
<tr>
<th>Russian steel segment, USD million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>7,826</td>
<td>7,216</td>
</tr>
<tr>
<td>Operating profit</td>
<td>1,791</td>
<td>1,400</td>
</tr>
</tbody>
</table>

**Turkish steel segment results**

MMK Metalurji's revenue for 2018 amounted to USD 620 million, a decrease of 11% y-o-y, mainly due to lower sales volumes. This was the result of adverse external factors and the challenging economic situation in Turkey. The collapse of the Turkish lira resulted in reduced purchasing power on the part of customers, with demand and prices for steel products in the domestic market falling to their lowest level in the last year and a half.

MMK Metalurji's operating loss for 2018 amounted to USD 70 million.

<table>
<thead>
<tr>
<th>Turkish steel segment, USD million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>620</td>
<td>695</td>
</tr>
<tr>
<td>Operating profit</td>
<td>-70</td>
<td>-11</td>
</tr>
</tbody>
</table>

**Coal segment**

Revenue for the coal segment amounted to USD 340 million in 2018, an increase of 6% y-o-y. Revenue growth resulted from higher sales of coal concentrate, which was driven, in turn, by a rise in MMK's production of its own ROM coal. This, among other things, made it possible to reduce the volume of coal purchases from third parties by more than 50%, while also having a positive impact on the cost of production of coal concentrate.

The coal segment's operating profit for 2018 was USD 104 million.

<table>
<thead>
<tr>
<th>Coal segment, USD million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>340</td>
<td>320</td>
</tr>
<tr>
<td>Operating profit</td>
<td>104</td>
<td>75</td>
</tr>
</tbody>
</table>

**Exclusion of inter-segment transactions**

All intragroup transactions and balances, income and expenses are excluded in consolidated results.

<table>
<thead>
<tr>
<th>Exclusion of inter-segment transactions, USD million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>-572</td>
<td>-685</td>
</tr>
<tr>
<td>Operating profit</td>
<td>8</td>
<td>-9</td>
</tr>
</tbody>
</table>
Results for the Russian steel segment

The Russian steel segment is centred around the Group’s parent company, Magnitogorsk Iron and Steel Works. The critically important focus of this segment is to support MMK's production and sale of steel products. Although the main production, management and administrative resources are concentrated at the industrial site in Magnitogorsk, the sphere of interests of the companies in this segment, their branch operations and business divisions cover the whole territory of Russia and other countries of the Eurasian Customs Union. The results of operations in the Russian steel segment to a significant degree shape the results of the Group as a whole. This also applies to industrial, financial and economic indicators.

In addition to MMK, the Russian steel segment includes the MMK-Metiz Metalware and Sizing Plant, the Lysva Metallurgical Company (the only manufacturer in Russia of cold-galvanised steel and polymer-coated rolled products based on this technology), service and trading companies and a group of organisations in the social sphere. In 2018, MMK generated nearly 95% of the segment's EBITDA and 90% of the Group's EBITDA. For this reason, this section will be dedicated to MMK’s results (non-consolidated results according to RAS), as they determine the results for the segment and the Group.

Revenue and profit

MMK’s revenue in 2018 amounted to RUB 458.2 billion, an increase of RUB 65.4 billion y-o-y. The main reason for this was the rise in prices for metal products in all markets where the Company operates. Traditionally, MMK’s domestic market has provided the best margins.

Gross profit totalled RUB 116.5 billion, which was 35% higher y-o-y (RUB 86.5 billion). Thus, 2018 once again set a new record in the Company's recent history. However, increased prices for raw materials eliminated much of the positive impact of the rise in prices for metal products. In addition, MMK maintained and expanded its programmes to cut costs and improve energy efficiency in the production process last year: as a result, the Company was able to reduce its costs by RUB 4.4 billion.

<table>
<thead>
<tr>
<th>Key Results</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue, RUB million</td>
<td>458 218</td>
<td>392 782</td>
</tr>
<tr>
<td>Cost of sales, RUB million</td>
<td>309 701</td>
<td>279 131</td>
</tr>
<tr>
<td>Selling and distribution expenses, RUB million</td>
<td>25 482</td>
<td>21 062</td>
</tr>
<tr>
<td>General and administrative expenses, RUB million</td>
<td>6 573</td>
<td>6 126</td>
</tr>
<tr>
<td>Profit from sales, RUB million</td>
<td>116 462</td>
<td>86 463</td>
</tr>
<tr>
<td>Capex, RUB million</td>
<td>39 110</td>
<td>24 799</td>
</tr>
<tr>
<td>Average headcount, persons</td>
<td>17 887</td>
<td>17 955</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analysis of profit from sales, RUB million</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit from sales</td>
<td>116 462</td>
<td>86 463</td>
</tr>
<tr>
<td>Change</td>
<td>29 999</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of changes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Production volume</td>
<td>1 040</td>
</tr>
<tr>
<td>Product prices</td>
<td>48 073</td>
</tr>
<tr>
<td>Product structure</td>
<td>2 943</td>
</tr>
<tr>
<td>Price of raw materials, fuel and energy</td>
<td>-21 694</td>
</tr>
<tr>
<td>Specific costs</td>
<td>-397</td>
</tr>
<tr>
<td>Supply structure</td>
<td>-2 821</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>-3 072</td>
</tr>
<tr>
<td>Other expenses contributing to cost</td>
<td>974</td>
</tr>
<tr>
<td>Other factors</td>
<td>4 953</td>
</tr>
</tbody>
</table>
Revenue growth over the past few years was mainly the result of higher prices for metal products.

This is also the main driver of the increase in gross profit. At the same time, cost growth, primarily for raw materials, lags behind the increase in prices for MMK’s products, which is due, among other reasons, to actions taken by the Company’s management.

Production and shipping

Production of pig iron decreased 3% y-o-y due to the planned overhaul of blast furnace No 1 in 2018, as well as the large number of ongoing repairs to other blast furnaces. Steel production was also down by 1.5% in 2018 due to the reduced capacity of the Company’s electric arc furnaces as a result of scheduled maintenance and higher prices for scrap.

Despite the decrease in steel production, shipments of metal products increased by 0.7% in 2018 y-o-y, which was the result of a decrease in stocks of finished products in the Company's warehouses.

Core production capacities were fully utilised in 2018: sinter and blast furnace production was at 100%, coke and byproduct production at 99% and oxygen-converter capacity at 100%. Mill 5000 was utilised at 100% capacity in 2018.
In 2018, shipments of metal products increased by 0.7% y-o-y and amounted to 11,411 thousand tonnes. The share of HVA products (in tonnes) was 38%.

Hot-rolled steel has historically accounted for the lion’s share of metal production at MMK, and it is the Company’s primary export product. In recent years, thanks to major upgrades in production, the volume of HVA products has increased significantly.

In recent years, Russia has seen a substantial rise in demand for coated metals. MMK has a major market share for this type of product, as it has steadily increased its production capacity (including through the acquisition of the Lysva Metallurgical Company). The reduction in shipments of polymer-coated rolled steel is precisely due to the increase in shipments of cold-rolled steel from the Lysva Metallurgical Company.

In 2018, the Company continued to expand its presence in its key market of Russia and the CIS: MMK increased shipments to the CIS (up 4.3%) and to the domestic market (up 6.1%) y-o-y, while reducing export sales by 15.1%.

Changes in shipments by product:

- The 3.0% decrease in shipments of hot-rolled steel y-o-y was due to an increase in sales of HVA products.
- The volume of HVA products shipped was up by 5.7% y-o-y to 4,380 thousand tonnes. This increase resulted from the fact that the new hot-dip galvanising line was operating at full capacity, as well as higher shipments of cold-rolled steel to the Lysva Metallurgical Company and an increase in sales of other downstream processed products to the domestic market.
Shipments of cold-rolled steel rose by 112 thousand tonnes, or 8.5%, y-o-y, mainly due to an increase in the supply of semi-finished rolled products to the Lysva Metallurgical Company.

Shipments of galvanised steel amounted to 1,269 thousand tonnes, up by 12.0% y-o-y. This growth resulted from the fact that the new hot-dip galvanising line was operating at full capacity, which, combined with stable demand from the construction industry, made it possible to continue to replace imports of this type of product. The Company also increased shipments to automakers in 2018.

Shipments of polymer-coated rolled products decreased both due to the increase in sales of galvanised steel products and due to the termination of work on a give-and-take basis with the Lysva Metallurgical Company after the completion of MMK's acquisition of the company at the end of 2017.

Shipments of moulded sections increased 35.7% due to consistently high demand from carriage-building enterprises in the railway industry.

**Investment**

MMK's 2018 investment programme totalled RUB 40 billion, which was 58% higher y-o-y. The main reason for this was the ongoing modernisation of the Company's primary division (sintering, coking and blast furnace production). In 2018, the main work on the construction of a new sintering plant were carried out: all of the buildings were constructed; the installation of flue gas stacks, water conduits and the boiler room was completed; and most of the conveyor equipment and sintering machine No 1 were installed. The initiative to overhaul Hot-Rolling Mill 2500 continued, with plans to launch an upgraded roughing train in 2019. The construction of air separation unit No 5 was completed. The purpose of the unit is to provide the Company's enterprises with an uninterrupted supply of industrial gases. The unit uses a state-of-the-art process involving internal compression to capture air-separation products without having to use additional compressors. The use of this technology makes the process safer and more reliable.

One of MMK's major environmental initiatives in 2018 was the reconstruction of the Company's closed-circuit water supply system and expansion of the system's cooling reservoir. The aim of the initiative is to hook up the Company's power facilities to the closed-circuit system, thereby reducing MMK's adverse impact on the Magnitogorsk reservoir. In 2018, the sluice for the 2.55-kilometre-long dam was completed, along with auxiliary facilities (culverts), which made it possible to separate MMK's water supply system from the flow path of the Magnitogorsk reservoir.

The 2018 investment programme was driven by Strategy 2025: the selection of projects based on a risk-weighted NPV evaluation, the uniform distribution of capital expenditures for each period without peaks and investments that do not exceed operating profit.

**Business focus**

The Company's main objectives for 2018-2020, according to Strategy 2025 (for more details, see the corresponding section) are improving operational efficiency, improving workplace safety, reducing the Company's environmental impact and developing human resources, as well as expanding client services, increasing the transparency of the execution of customer orders and digitising production processes (Industry 4.0). MMK's management achieved substantial progress in 2018 in these areas, which has been recognised by both the Company's Board of Directors and independent industry experts.

**Innovations and inventions**

Large businesses in Russia and abroad, including in the steelmaking industry, are focused on innovation largely because of their need to develop labour-saving measures and innovations in their own operations.
MMK Group policy envisages intensive development through increased efficiency and improved cost control. This is facilitated through the implementation of scientific and technical initiatives and through the involvement of as many employees as possible in technical creativity.

Innovation has been one of MMK's priorities since 2015.

A system developed that same year that allows individuals to submit proposals for innovations has proven effective. In the intervening period, there has been a clear increase in the quantity and quality of proposals and a reduction in the time spent on their implementation.

In 2017, for example, 5,665 ideas were submitted for review by expert commissions, 3,621 of which moved on to the implementation stage. In 2018, 5,792 ideas were submitted for consideration, 3,872 of which were adopted for implementation.

The economic impact of proposals implemented in 2018 exceeded RUB 453 million. The greatest economic benefits achieved in 2018 came from workshops subordinated to the chief metallurgist and the chief rolling mill operator, accounting for RUB 179.2 million and RUB 186.3 million, respectively. More than RUB 22.1 million was paid out in remuneration to the creators of these inventions.

The ideas put forward by innovators and inventors make existing technologies more efficient under current conditions. With this in mind, MMK's management pays special attention to developing the creative potential of employees and incentivising personnel to take the initiative to make improvements, including through competitions, seminars, exhibitions and other events.

Structural divisions hold quarterly contests for the best problem-solving ideas and provide material incentives to the first-, second- and third-place winners.

The following contests are held annually: “MMK's Best Young Innovator and Inventor”, with awards presented to the top 15 innovators 30 years of age or younger; and “The Best Innovation Proposal at MMK” takes place in various categories, including materials and equipment, occupational health and safety, and energy efficiency, with awards going to the first-, second- and third-place finishers in each category, along with the selection of one overall winner.

MMK also conducts various training courses on the subjects of innovation and invention. In March 2018, the Personnel Training Centre conducted a training seminar called “Productivity School: Theory of Inventive Problem Solving for Finding Original Solutions to Difficult Production Situations”.

Encouraging and popularising innovation- and invention-related work has, as noted above, yielded positive results.

Another effective tool for getting more employees involved in technical creativity is the Fresh Ideas campaign, which is timed to coincide with Innovator and Inventor Day. It is aimed primarily at popularising technical creativity in general and at promoting a specially developed mobile brainstorming app called Evolution. The app, which is available for both Android and iOS, allows staff members to submit ideas in a few easy steps either through their mobile phone or computer. At the same time, the app allows anyone who submits an idea to track its progress, e.g., to find out the decision of the relevant shop committee.
Turkish steel segment results

Production figures

Sales of metal products amounted to 767 thousand tonnes in 2018, a 17% decrease y-o-y, which was mainly due to a lower volume of rolls cut into sheets due to price volatility for hot-rolled and cold-rolled steel and due to changes in the product portfolio. In accordance with changing market demand in the context of a general downturn in the economy, a technology for the production of galvanised and polymer-coated products of commercial quality was developed and introduced (with 80 thousand tonnes produced in 2018).

The share of HVA products was 94%, or 724 thousand tonnes, which was 12% higher y-o-y. In addition, the development of new types of products is ongoing, including:

- colouring technology for cold-rolled steel; and
- ongoing tests for colouring rolled aluminium products.

Twenty-eight per cent of the Company’s production was exported in 2018, compared to 23% a year earlier. The increase in the share of exports was due to an increase in export shipments as a result of the decline in domestic demand associated with the general downturn in the Turkish economy amid economic instability and the depreciation of the local currency. In order to reduce the impact of negative factors in the domestic market, there are plans to increase the share of exports to 70%.

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total steel production at MMK Metalurji, including:</td>
<td>156</td>
<td>505</td>
<td>901</td>
<td>664</td>
<td>690</td>
<td>795</td>
<td>854</td>
<td>925</td>
<td>767</td>
</tr>
<tr>
<td>Sheets hot-rolled, cold-rolled</td>
<td>86</td>
<td>187</td>
<td>302</td>
<td>60</td>
<td>64</td>
<td>80</td>
<td>134</td>
<td>164</td>
<td>42</td>
</tr>
<tr>
<td>HVA products:</td>
<td>70</td>
<td>318</td>
<td>599</td>
<td>604</td>
<td>627</td>
<td>716</td>
<td>720</td>
<td>762</td>
<td>724</td>
</tr>
<tr>
<td>Galvanised</td>
<td>32</td>
<td>195</td>
<td>274</td>
<td>294</td>
<td>381</td>
<td>444</td>
<td>511</td>
<td>580</td>
<td>566</td>
</tr>
<tr>
<td>Colour coated products</td>
<td>38</td>
<td>123</td>
<td>324</td>
<td>311</td>
<td>246</td>
<td>272</td>
<td>209</td>
<td>182</td>
<td>158</td>
</tr>
<tr>
<td>Share of high-value-added products</td>
<td>45%</td>
<td>63%</td>
<td>66%</td>
<td>91%</td>
<td>91%</td>
<td>90%</td>
<td>84%</td>
<td>82%</td>
<td>94%</td>
</tr>
<tr>
<td>MMK Metalurji metal products made from metal supplied by MMK</td>
<td>0.0</td>
<td>0.0</td>
<td>22.6</td>
<td>273.1</td>
<td>189.0</td>
<td>623.2</td>
<td>615.3</td>
<td>640.1</td>
<td>513.3</td>
</tr>
</tbody>
</table>

Main economic indicators

MMK Metalurji’s total revenue amounted to USD 620.1 million in 2018. Revenue from sales of metal products amounted to USD 570.7 million, which was USD 68.5 million, or 10.7% less y-o-y. This was mainly due to a decrease in shipments.

The average price in 2018 was USD 744/tonne, up USD 53/tonne, or 8%, y-o-y. This price increase was the result of changes in market conditions and in the structure of shipments.

EBITDA amounted to USD -9.0 million in accordance with IFRS standards (the loss was mainly due to the fact that sales of steel products in the domestic market were denominated in Turkish lira, which experienced a great deal of volatility during the year).

The substantial decrease was mainly due to the faster rise in prices for hot-rolled coil relative to the rise in prices for metal products and the general decline in the Turkish economy. Below are some key figures:

- An increase in prices for semi-finished hot-rolled products by an average of USD 84/tonne (16%);
- An increase in zinc prices by an average of USD 410/tonne (14%);
- An increase in prices for polymers by an average of USD 406/tonne (16%);
The introduction by the United States of protective duties on steel imports (a 25% increase in duties for all countries and double the increase for Turkish manufacturers, i.e., 50%), as well as the start of an investigation into the import of steel into the EU.

In order to improve the main economic indicators, a programme was carried out in 2018 to reduce costs and improve efficiency that saved USD 6.7 million. In 2019, measures are being taken to improve efficiency that are expected to save USD 15 million per year, including:

- an increase in the share of export sales to 70%;
- an increase in the share of sales to industry customers and expansion of the product range;
- a reduction in metal consumption rates for rolled steel, fuel and energy resources and materials;
- a reduction of fixed costs; and
- an increase in the volume of cargo shipped by sea.

At the end of 2018, the company’s headcount was 1,185, which was 3% lower than at the beginning of the year.

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipments</td>
<td>ths tonnes</td>
<td>155.8</td>
<td>505.0</td>
<td>900.6</td>
<td>664.3</td>
<td>690.1</td>
<td>795.1</td>
<td>853.7</td>
<td>925.2</td>
<td>766.8</td>
</tr>
<tr>
<td>- domestic market</td>
<td>ths tonnes</td>
<td>152.1</td>
<td>438.3</td>
<td>756.8</td>
<td>563.4</td>
<td>615.8</td>
<td>733.0</td>
<td>781.4</td>
<td>715.9</td>
<td>553.8</td>
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<tr>
<td>- export</td>
<td>ths tonnes</td>
<td>3.6</td>
<td>66.7</td>
<td>143.8</td>
<td>100.9</td>
<td>74.4</td>
<td>62.2</td>
<td>72.3</td>
<td>209.3</td>
<td>213.0</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>2.3</td>
<td>13.2</td>
<td>16.0</td>
<td>15.2</td>
<td>10.8</td>
<td>7.8</td>
<td>8.5</td>
<td>22.6</td>
<td>27.8</td>
</tr>
<tr>
<td>Sales</td>
<td>ths $</td>
<td>121 616</td>
<td>441 938</td>
<td>739 447</td>
<td>582 636</td>
<td>505 989</td>
<td>477 881</td>
<td>639 143</td>
<td>570 655</td>
<td></td>
</tr>
<tr>
<td>- domestic market</td>
<td>ths $</td>
<td>118 525</td>
<td>384 320</td>
<td>602 422</td>
<td>484 264</td>
<td>496 208</td>
<td>464 925</td>
<td>486 892</td>
<td>406 101</td>
<td></td>
</tr>
<tr>
<td>- export</td>
<td>ths $</td>
<td>3 091</td>
<td>57 618</td>
<td>137 025</td>
<td>98 372</td>
<td>66 788</td>
<td>41 064</td>
<td>164 554</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price of 1 tonne</td>
<td>$/t</td>
<td>781</td>
<td>875</td>
<td>821</td>
<td>877</td>
<td>816</td>
<td>636</td>
<td>560</td>
<td>701</td>
<td>744</td>
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<tr>
<td>- domestic market</td>
<td>$/t</td>
<td>779</td>
<td>787</td>
<td>796</td>
<td>860</td>
<td>806</td>
<td>634</td>
<td>557</td>
<td>680</td>
<td>733</td>
</tr>
<tr>
<td>- export</td>
<td>$/t</td>
<td>848</td>
<td>864</td>
<td>953</td>
<td>975</td>
<td>898</td>
<td>660</td>
<td>585</td>
<td>727</td>
<td>773</td>
</tr>
<tr>
<td>Cost of commodity metal products</td>
<td>ths $</td>
<td>132 518</td>
<td>484 525</td>
<td>891 583</td>
<td>591 536</td>
<td>598 328</td>
<td>541 458</td>
<td>483 207</td>
<td>623 722</td>
<td></td>
</tr>
<tr>
<td>- domestic market</td>
<td>ths $</td>
<td>118 525</td>
<td>384 320</td>
<td>602 422</td>
<td>484 264</td>
<td>496 208</td>
<td>464 925</td>
<td>486 892</td>
<td>406 101</td>
<td></td>
</tr>
<tr>
<td>- export</td>
<td>ths $</td>
<td>3 091</td>
<td>57 618</td>
<td>137 025</td>
<td>98 372</td>
<td>66 788</td>
<td>41 064</td>
<td>164 554</td>
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<td></td>
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<tr>
<td>Sales profitability</td>
<td>ths $</td>
<td>-10 902</td>
<td>-42 587</td>
<td>-152 136</td>
<td>-8 900</td>
<td>-35 332</td>
<td>-35 468</td>
<td>-5 325</td>
<td>-53 068</td>
<td></td>
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<tr>
<td>- export</td>
<td>ths $</td>
<td>-851</td>
<td>959</td>
<td>990</td>
<td>891</td>
<td>867</td>
<td>681</td>
<td>566</td>
<td>701</td>
<td>813</td>
</tr>
<tr>
<td>Profitability of commodity metal</td>
<td>%</td>
<td>-8.2%</td>
<td>-8.8%</td>
<td>-17.1%</td>
<td>-1.5%</td>
<td>-5.9%</td>
<td>-6.6%</td>
<td>-1.1%</td>
<td>-1.5%</td>
<td>-8.5%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>ths $</td>
<td>-13 674</td>
<td>-63 386</td>
<td>-76 111</td>
<td>25 072</td>
<td>28 018</td>
<td>36 441</td>
<td>43 000</td>
<td>50 000</td>
<td>-9 000</td>
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<td>EBITDA margin</td>
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<td>-13.4%</td>
<td>-9.8%</td>
<td>3.9%</td>
<td>4.4%</td>
<td>6.6%</td>
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<td>7.2%</td>
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<td>15.0</td>
<td>6.0</td>
<td>22.0</td>
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Cost structure

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<td>Raw materials and basic supplies</td>
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<td>Semi-processed products</td>
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<td>65</td>
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<td>%</td>
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<td>2</td>
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<td>Energy resources from third parties</td>
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<td>Depreciation &amp; amortisation</td>
<td>%</td>
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<td>7</td>
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<td>11</td>
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<td>Other expenses</td>
<td>%</td>
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<td>2</td>
<td>2</td>
<td>2</td>
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</tr>
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<td>TOTAL</td>
<td>%</td>
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<td>100</td>
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<td>100</td>
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Seaport

The seaport's cargo throughput volume in 2018 was 6.9 million tonnes, down 15.4% y-o-y. This was largely due to the general decline in industrial production in Turkey and the fact that some of MMK Metalurji’s clients opened their own seaports.

Despite unfavourable economic and political events taking place in Turkey and around the world, the company continues to prepare for the launch of a hot-rolling facility, which it is financing itself, as this will lead, in the long run, to increased profitability and shorter lead times.
Coal segment results

In this section, all results are provided in accordance with RAS, and "the Company" refers to all the companies in the coal segment.

Belovskaya Central Coal Preparation Plant

The Belovskaya Central Coal Preparation Plant enriches various grades of coking coal. Its production capacity is 6,160 thousand tonnes of ROM coal, and its main product is fat coal concentrate.

In 2018, an overhaul of the units used for the thermal drying of fat coal was completed, which made it possible to replace the production of Zh+KS (fat + coking cake) with fat coal concentrate.

Work continued on the overhaul of the central beneficiation plant to reduce ash content and increase concentrate yield. The completion of this initiative will make it possible to steadily process hard-cleaning coal, increase the yield of ready production by more than 3.0% and reduce the ash content in fat coal concentrate to 9.5%.

Chertinskaya-Koksovaya Mine

The mine has been mining the reserves of the Chertinsky coal deposit in the Kuzbass for nearly 65 years. It mines high-value fat coal used for coke at metallurgical plants. Preparatory work is currently under way at the mine, and coal reserves in veins 4 and 5 are being mined. The mining of the coal reserves in the underlying vein No 6 is also being considered for the future.

The start of production of the coal reserves in vein No 4 and the construction of an inclined conveyor shaft at the worksite enabled the Company to extract 2,149 thousand tonnes of coal in 2018. The timely preparation of the mine workings and the start of construction of the Bremsberg 501 worksite will enable the Company to maintain its level of coal production in the years to come.

Kostromovskaya Mine

The mine was put into operation in 2008 and is one of the youngest coal mining enterprises in the Kuzbass. Nevertheless, due to its high productivity, the mine has completely developed the western flank of the mine field in recent years, and mining works have been relocated to the eastern flank. At present, only vein No 19 is being processed, which produces fat coal used in the production of high-quality coke. To ensure the possibility of future work for the Kostromovskaya Mine, the Company purchased the Nikitinsky subsurface site at auction in 2010, where the veins lie below vein No 19. In December 2015, the coal reserves at the Nikitinsky site were reviewed and confirmed by the State Commission on Reserves. As a result, the Company's coal reserves increased by 130.8 million tonnes.

In 2018:

- coal production reached 2,778 thousand tonnes;
- the first stage of an advanced waste-water treatment facility entered into operation; this will enable the removal of suspended solids from waste water to ensure that it meets permissible levels for natural bodies of water;
- a project aimed at the development of coal reserves in the Nikitinsky site got under way; the design and start of preparatory works for the penetration of reserves and preparation for mining is scheduled for 2019.

Service and Logistics Shop

The Service and Logistics Shop provides services in the following areas:

- maintenance of railway tracks and stations belonging to MMK-Ugol, delivery of cargo (materials, equipment, fuel and lubricants, etc.) by rail, transport of empty
carriages and carriages carrying ROM coal and concentrate between stations belonging to MMK-Ugol and the Ministry of Railways’ Belovo station;

- manufacturing of metal products for production divisions, assembly and dismantling of mining equipment (mechanised scrubbers, belt conveyors and other works);

- providing automobile services to transport workers to their places of work and to transport goods, maintenance of specialised and bulldozer equipment for the Company’s coal warehouses, removing and stacking rocks at the Belovskaya Central Coal Preparation Plant dumpsite and other works;

- drilling of degassing and dewatering boreholes and monitoring of the geological environment, as well as maintenance of pumps and pumping of groundwater from dewatering boreholes.

In 2018, the main works on the reconstruction of the Kostromovskaya railway station (RUB 154 million) were carried out in order to increase capacity to 3.0 million tonnes of coal per year, and design work for the reconstruction got under way on the Babanakovo railway station (RUB 22 million); equipment was overhauled at a cost of RUB 95 million.

**Production**

In 2018, MMK-Ugol’s mining departments produced 4,927 thousand tonnes of ROM coal, which was 1,312 thousand tonnes (36.3%) more y-o-y.

The Chertinskaya-Koksovaya mine increased coal production by 762 thousand tonnes, from 1,387 thousand tonnes in 2017 to 2,149 thousand tonnes in 2018. The plan for 2019 is to increase production to 2,300 thousand tonnes while extracting coal from veins No 4 and No 5.

The Kostromovskaya Mine produced 2,778 thousand tonnes of coal in 2018, up from 2,227 thousand tonnes in 2017, an increase of 551 thousand tonnes. The plan for 2019 is to increase production to 3,000 thousand tonnes.

The Belovskaya Central Coal Preparation Plant processed 5,640 thousand tonnes of ROM coal in 2018, which was 746 thousand tonnes more than in 2017. Some 3,001 thousand tonnes of coal concentrate were produced, which was 275 thousand tonnes more than in 2017. In 2019, plans call for processing 6,000 thousand tonnes of raw coal and producing 3,440 thousand tonnes of coal concentrate.

**Revenue and profit**

The vast majority of the Company’s production is purchased by MMK. In 2018, the share of production sold to third-party customers was 14.1% of the total, compared to 0.3% the year before. The increase was due to market conditions.

Overall, the Company’s revenue increased by 15.2% in 2018, reaching RUB 21,305 million, of which the total amount of revenue from transactions outside the Group amounted to RUB 3,360 million.
Gross profit amounted to RUB 7,215 million. The main factors behind the increase in profits from the sale of steel were the rise in coal concentrate prices, the increase in the volume of coal concentrate sold and the change in the structure (replacing Zh+KS concentrate with fat coal). Factors affecting gross profit were higher prices for raw materials and tariff hikes by natural monopolies.

Revenue from sales of 2,553 thousand tonnes of fat coal concentrate, the main grade produced by MMK-Ugol, amounted to RUB 18,308 million.

The provision of other services to third parties generated additional revenue of RUB 38 million.

The consolidated cost of production of coal concentrate prior to amortisation decreased by 13% and totalled RUB 11,078 million. This includes a decrease in expenditures on purchased materials in the amount of RUB 3,685 million, or 64%.

Amortisation charges in 2018 amounted to RUB 1,790 million.

Expenditures on ongoing mine development work (preparation of production units) totalled RUB 1,307 million; according to the Company’s accounting policy, these are considered deferred expenses.

In 2018, the Company developed a programme of measures to reduce costs and improve the efficiency of MMK-Ugol's production activities. The programme includes measures aimed at reducing the prime cost of mining coal and reducing the consumption of process materials, as well as measures to improve energy efficiency. In total, these measures generated savings of RUB 106 million in 2018.

### Key figures

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<tr>
<td>Revenue, RUB million</td>
<td>21,305</td>
<td>18,499</td>
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<td>Cost of production and sales before amortisation, RUB million</td>
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<td>12,782</td>
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<td>Amortisation, RUB million</td>
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<td>1,401</td>
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<td>Gross profit, RUB million</td>
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<td>4,913</td>
</tr>
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<td>Capital expenditure, RUB million</td>
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<td>EBITDA, RUB million</td>
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<td>EBITDA margin, %</td>
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<td>Average headcount</td>
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### Profit analysis, RUB million

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<td>4,913</td>
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<td>Change</td>
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### Analysis of changes

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<th>Analysis of changes</th>
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<td>Sales structure of commercial products</td>
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<td>Proceeds from sales of other products</td>
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<td>Prime cost</td>
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<tr>
<td>Amortisation</td>
<td>-389</td>
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Capital expenditure

MMK-Ugol made capital investments in 2018 amounting to RUB 3,419 million, including:

- the Chertinskaya-Koksovaya Mine (RUB 1,014 million);
- the Kostromovskaya Mine (RUB 1,136 million);
- the Belovskaya Central Coal Preparation Plant (RUB 976 million);
- and the Service and Logistics Shop (RUB 288 million).

Major areas of investment were as follows:

- the acquisition of equipment for maintaining and expanding production, as well as increasing productivity and labour efficiency;
- setting up workings for the penetration of coal reserves and preparation for mining; and
• purchasing equipment to improve and create safer working conditions, as well as to improve the processing of ROM coal.

In 2019, the Company plans to invest RUB 6,092 million in the development and maintenance of production, including RUB 1,657 million for the purchase of equipment, RUB 3,378 million for capital construction, RUB 611 million for equipment upgrades and RUB 446 million for other activities.

**Business focus**

To improve financial results, reduce costs and improve production processes, MMK-Ugol introduced a number of development initiatives. In 2018, the following projects were implemented:

• Modernisation of the Belovskaya Central Coal Preparation Plant in order to increase the yield of concentrate from ROM coal and to reduce the ash content of the resulting concentrate. The implementation of this project will make it possible to steadily process hard-cleaning coal, increase the yield of finished products by more than 3.0% and reduce the ash content in the concentrate to 9.5%.

• The design and reconstruction of the Kostromovskaya and Babanakovo railway stations. The project will increase the capacity of the Kostromovskaya station to 3.0 million tonnes per year.

• Design and construction of the Bremsberg 501 worksite at the Chertinskaya-Koksovaya mine. To be completed in 2019, this project will make it possible to maintain the mine's production level at no less than 2.0 million tonnes per year.

• Engineering design for coal mining at the Nikitinsky site in the Kostromovskaya mine. Completion of project development and the start of the next stage—the extraction of coal reserves—are scheduled for 2019. The coal faces of the Nikitinsky site will replace vein No 19, which is to be decommissioned in 2024.

• In the reporting year, the first stage of a waste-water treatment facility at the Kostromovskaya Mine was put into operation. This made it possible to treat the mine’s waste water so as to remove suspended solids to ensure that it meets permissible levels for natural bodies of water.

**Developing the raw material base**

In 2010, the Chertinskaya-Yuzhnaya mine received a licence for the right to mine the subsoil in the Chertinskiy-glubokiy block.

As the mine has been mothballed (the project provides for the conservation of mine workings for eight years) since 1 January 2015, coal reserves in the Chertinskiy-glubokiy block can be developed by the Chertinskaya-Koksovaya Mine in the future.

To fulfil the licence conditions for the Chertinskiy-glubokiy block, the Chertinskaya-Koksovaya Mine conducted and submitted in 2016 to the State Committee for Mineral Reserves a feasibility study for continued exploration in order to calculate the block's coal reserves.

In April 2018, the Company defended its geological report and calculation of coal reserves in the Chertinskiy-glubokiy block before the State Committee for Mineral Reserves. As a result, reserves in the amount of 68.1 million tonnes at the Chertinskiy-glubokiy block were added to MMK-Ugol’s reserves.

At present, the coal-mining divisions of MMK-Ugol, the Kostromovskaya Mine and Chertinskaya-Koksovaya Mine have sufficient coal reserves to last more than 30 years.
MMK's core production processes

Production

Sinter production and an ore-dressing mill are the first stage in metallurgical production at MMK. The main product of this stage is sinter, which is a coarse form of sintered iron ore concentrate. Iron ore concentrate cannot be used directly in blast furnaces because it contains a small mesh size and lacks the required gas permeability. To produce sinter, iron ore is blended in a certain proportion with metallurgical coke and fluxing additives (materials that impart a given chemical composition to the sinter). The resulting mixture (sintering mix) is moistened, turned into a pelletable mixture and delivered to the belts of sintering machines, where the ignition furnaces ignite the coke in the sintering mix. This leads to sintering of the sinter “cake”, which, when it exits the sinter unit, enters crushers and is crushed to the best size for the blast furnaces. The sintering process not only creates semi-finished steel for the blast furnace shop, it also helps to partially remove harmful impurities (sulphur, phosphorus, zinc, etc.). Importantly, the sintering process enables the recycling and reuse in production of various types of iron ore and coke, dust from gas cleaners and fine pulp, which lowers the cost of the end product and reduces the environmental impact. MMK produces sinter in three sinter plants with a total of 13 sintering machines.

Construction work on a new sinter plant continued in 2018. The new sinter plant No 5 will be housed at a remote site away from residential areas. Once it begins operating—at the same time as the decommissioning of the outdated sinter plant No 4—the new plant will limit the negative impact of production on the environment. The implementation of these projects in 2019 will increase the production of sinter to 11.2 million tonnes.

Coke production

Coke production is also one of the key links in the first stage of steelmaking, as it provides fuel for blast furnaces. The main product of coke production is metallurgical coke, which is produced by sintering (coking) coking coal in the coke oven batteries without letting in air. An important feature of coking technologies is that fuel combustion in the coke oven batteries occurs in the heating chambers without contacting the coal charge. Key indicators of coke quality are its hot strength, reactivity and volatile content. MMK’s coke production facility is the largest in Russia in terms of capacity and actual production volume. This technologically integrated coke production complex includes a coal preparation plant, three coke plants, two byproduct recovery plants, a chemical byproduct processing plant and a number of maintenance shops. Coke is produced in nine coke oven batteries. Ninety-two per cent of the coke produced covers the requirements of the blast furnace plant, while 8% is supplied to companies in the non-ferrous-metals, chemical and machinery industries, for which this is also fuel or feedstock. The second product from the coking process is coke gas, which is processed in two recovery plants. This generates valuable byproducts such as benzene, ammonium sulphate, sulphur and tar pitch. Following preparation in the recovery shops, coal-tar pitch is processed into black pitch, anthracene oil, naphthalene and absorbent oil, which are also valuable byproducts.

Blast furnace production

Blast furnace production is fundamental to the steelmaking industry and to the production cost of the final product. The blast furnace process is unique and one of the most challenging in the industry. It has the highest efficiency among current industrial metallurgical processes. In essence—except for the equipment—the blast furnace process has remained the same for over 200 years. The main blast furnace product is pig (liquid) iron, which subsequently serves as the primary raw material for producing steel. Pig iron is an alloy of iron with a carbon content exceeding 2.14% and other chemical elements. Because of the high carbon content, pig iron is less malleable than steel and cannot be rolled. The blast furnace process is regarded as continuous. The blast furnace is a huge laboratory in which a
counter-flow of a charge (top to bottom) and gas (bottom to top) is implemented, transforming granular iron ore into liquid metal. Coke, sinter, pellets, iron ore and fluxes (blast charge) are delivered to the blast furnaces' receiving hoppers, where, through a system of conveyors, dispensers and skip hoists in a certain sequence and proportion, they are loaded into the charger located at the very top of the furnace. Loading is carried out in the furnace in batches, but continuously, which ensures a constant stock level in the furnace. The charge is loaded in the top shaft of the furnace into a special charging device. A hot, oxygen-enriched blast and natural gas are supplied from the bottom of the furnace under high pressure through special devices called tuyeres located in the bottom of the furnace (the tuyere zone). In this part of the furnace, under the influence of the slag that is formed and hydrogen-rich gas, the reduction of iron oxides is completed, iron melt is formed, and harmful impurities are transformed into slag. The main products of the blast furnace are slag and pig iron, but most of all the blast furnaces produce blast furnace gas, which is used as fuel for MMK’s production and economic needs. MMK produces pig iron in eight blast furnaces with a total usable volume of 12,261 cubic metres.

**Steel production**

Chemically, steel production is the process of the decarbonisation (the reduction of the carbon content) of iron. MMK produces steel at two plants: the oxygen-converter plant (OCP) and its electric arc furnace plant (EAF).

**Oxygen-converter plant**

Steel is produced at the OCP using pig iron and prepared scrap metal. Metal scrap is essentially steel but in a solid form, and it is used to reduce the consumption of the pig iron and to regulate the melting temperature. If necessary, the pig iron can be pre-processed at the iron desulphurisation unit to remove up to 80% of the sulphur (a very harmful impurity in steel that reduces mechanical strength and weldability and impairs electrical, anti-corrosive and other properties). Pig iron and scrap are loaded into an oxygen converter (essentially a huge pot lined inside with refractory brick that can hold up to 370 tonnes of molten liquid), and special additives are fed into the converter to produce the right composition (including lime and iron-rich dolomite), and the oxygen-lancing process is carried out in the tuyere in stages. The primary goal of the lancing is to remove carbon and other impurities from the metal and to heat it to a predetermined temperature. After the lancing, the metal is poured from the converter (simply by tipping it) into a ladle. The resulting steel then undergoes the steel ladle treatment, and special materials are added (aluminium, ferroalloys, etc.) to give the metal the right chemical and physical properties. After the ladle treatment, the steel, now with the right chemical composition and at the right temperature, is delivered to the continuous casting machine (CCM), where it is cast and cut into slabs.

**Electric arc furnace plant**

At the EAF plant, steel is melted in a twin-bath steel-melting unit (TBSM) and two electric arc furnaces. In the EAF, steel production is based on intensive lancing with oxygen in a bath with iron and scrap using the heat from the gases released during the lancing to heat the charge in the next chamber. The technology includes two melting periods:

a) the cold period for the loading, filling and heating of the scrap and casting of the pig iron; and

b) the hot period for melting and refinement.

The EAF primarily uses an electric arc to heat and melt the metallic charge, which is where this plant derives its name from. The materials used for the charge are liquid pig iron, scrap iron and ferroalloys. The EAF plant functions both without liquid iron (100% scrap with a melting cycle of 48 minutes) and with liquid iron (up to 40% with a melting cycle of 44 minutes).

After the right carbon content is reached, the melt is conveyed from the EAF or TBSM to the ladle slag cut-off. Then, as with the method for converting smelt, the steel undergoes
secondary processing. After this, the steel with the right chemical composition and temperature is conveyed to a CCM, where it is cast and cut into billets or slabs.

**Rolling production**

At MMK, rolling is considered the final stage in the production process. MMK’s diverse, state-of-the-art rolling mills give the Company the widest product range in the Russian steel sector. The rolling process entails pressing the metal not only to obtain the desired shape in the final product but also to form a specific structure with complex properties. This complex of mechanical properties can also be achieved by applying heat during the manufacturing process. There are two basic types of metal rolling: hot and cold.

**Hot rolling** takes place at temperatures that are 60% of the metal’s melting temperature or higher. At a higher temperature, the strength of the metal is reduced, thus decreasing the effort required for its deformation. During the deformation process, the metal immediately undergoes recrystallisation, with the constant formation of new grains. The continuous formation of new grains ensures high plasticity, making it possible to achieve a high strain yield without damaging the metal. It is more difficult to control the finite dimensions during hot rolling due to scale formation and volume changes during the subsequent cooling.

**Cold rolling** is metal deformation at its actual temperature without any additional heating. The phenomenon associated with cold processing takes place when metal is deformed at temperatures of about 30% of its melting temperature or lower. During cold rolling, an increasing number of dislocations occur in the metal. The entanglement of these dislocations causes the metal to harden—cold hardening or strain hardening. With mechanical hardening, the metal strength increases with increasing deformation. To produce metal recrystallisation, special heat treatment is often required, known as tempering. During tempering, the strength of the metal can decrease sharply with a significant increase in plasticity. This increase in plasticity often enables further deformation of the metal without its destruction. Cold rolling generally permits better control over the dimensional tolerances of the final product, as well the quality of its surface, than is the case with hot rolling.

MMK’s rolling plants produce the two main types of rolled products: flat products and long products.

**Flat Products Division**

MMK’s Flat Products Division consists of two hot-rolling plants, a coating shop, two cold-rolling plants and a downstream steel-processing plant.

ROLLING MILL NO 10 consists of a 2,000-mm-wide strip continuous hot-rolling mill with a thickness of 1.2-20.0 mm and a width of up to 1,850 mm. The mill includes four reheating walking-beam furnaces, a roughing train, an intermediate table, a finishing train, an accelerated cooling unit and a clean-up line.

ROLLING MILL NO 4 consists of a continuous 2,500-mm-wide strip hot-rolling mill capable of producing products 1.8-12.0 mm thick with a width of up to 2,200 mm, and three cut-to-length lines.

The hot-rolling plants include mills 4500, 2350 and 5000. Hot-Rolling Mill 2350 produces sheet-by-sheet slabs with a weight of up to 4.5 tonnes, a thickness of 6.0-30.0 mm and a width of up to 2,000 mm. Hot-Rolling Mill 4500 produces sheet-by-sheet slabs 30.0-160.0 mm thick and up to 2,700 mm wide. Thick Plate Mill 5000 produces high-margin thick-plate steel up to 8.0-160.0 mm thick and 4,850 mm wide for the oil and gas industry, shipbuilding, bridge construction and engineering. Products from this mill are in high demand among manufacturers of large diameter pipes.

Rolling Mill No 5 is dedicated to producing cold-rolled sheets for the automotive industry and enamelled and general-use products in both coils and sheets. It also produces rolled steel for the continuous hot-dip galvanising line, as well as semi-finished rolled stock
for the production of tinplate. Rolling Mill No 5 has four sections: pickling, rolling, heat-treatment and finishing. The mill’s main production units are continuous pickling lines No 1 and No 2, the four-stand Cold-Rolling Mill 2500 and a two-stand reversing cold-rolling mill.

**Rolling Mill No 8** produces cold-formed sections, ERW pipe, including galvanised pipes, and cold-rolled and hot-rolled pickled bands, as well as strips.

**Rolling Mill No 11**, the newest and most cutting-edge of MMK’s plants, was commissioned in 2011-2012. The main equipment at this new cold-rolling mill includes a continuous hydrochloric acid turbulent pickling line combined with a five-stand cold-rolling mill with production capacity of 2,100 thousand tonnes per year; a continuous hot-dip galvanising line with production capacity of 450 thousand tonnes per year; a combined continuous annealing/hot-dip galvanising line with production capacity of 650 thousand tonnes per year; and continuous hot-dip galvanising line No 3. The product mix ranges from cold-rolled and galvanised coils of up to 43.5 tonnes with a sheet thickness of 0.28-3.0 mm and a width of 850-1,880 mm (not including the trimmed edge).

**Coated metal products.** The Company produces hot-dip galvanised steel, polymer-coated rolled products, black and electrotin-plated sheet iron in sheets and coils, and it has state-of-the-art equipment that ensures consistently high-quality production, which is usually final and does not undergo further redistribution. The main production units are Cold-Rolling Mill 1200, two tempering mills, three continuous degreasing units, a continuous annealing unit, an electrolytic tinplating unit, three continuous hot-dip galvanising lines, two electrolytic tinplate cut-to-length lines, a galvanised steel and polymer-coated steel cut-to-length line and two polymer-coating lines.

**Long products**

MMK’s long-products production facilities include the state-of-the-art continuous-section long-products mills 450, 370 and 170. The blanks used for rolling in these mills are continuous-pour 150 x 150 mm and 152 x 170 mm billets up to 12 metres in length. The product mix produced at the long-products mills fully corresponds to market demand. These are primarily coils with a diameter of 5.5-9.0 mm, round long products with a diameter of 10-50 mm and rebars Nos 6-40. MMK’s state-of-the-art rolling mills manufacture products that meet the requirements of leading automotive companies, defence equipment manufacturers, railway equipment manufacturers, as well as producers of oil and gas pipelines. Mills 370 and 170 are equipped with high-efficiency accelerated water cooling lines, which make it possible to control the microstructure and properties of the finished rolled steel, as well as to produce heat-hardened rebars. Mill 170 is also equipped with a Stelmor line to produce sorbitised coils.

**MMK’s general product lineup**

**Hot-rolled steel**

- Etched coils and bands (used for forging various parts, baling strips, etc.)
- Flat products (used in industry, the construction sector, oil and gas, shipbuilding, bridge construction, engineering for producing a wide variety of metal structures, etc.).
- Pickled sheet (used for producing arc-welded pipe, shaped rolled steel channels, roll-formed corners, for applying protective coatings in the construction industry, in particular for the construction of staircases, fences, bridges, framework, prefabricated buildings, etc.).
- Coils and strips (used in the manufacture of shaped steel, a variety of metal structures, for the manufacture of ultra-high-strength wire, cutting devices, baling strips and springs, and for manufacturing gas, water and other pipes, blanks for manufacturing stamping machines, etc.).
• Moulded sections (used to produce a variety of metal frames in the construction industry, etc.).

**Long products**

Long and shaped rolled steel in bars: corners, channels, strips, circles, rebars and various special shapes are used in the construction industry both for monolithic construction and for manufacturing components of any configuration, in bridge construction, shipbuilding and the production of parts for electric locomotives and carriages. Shaped rolled steel in the form of corners and channels is used for welded metal structures, frames, housing and casings. Round, square and hexagonal rolled steel is used for making automotive and engineering fasteners (bolts, nuts, screws, ball pins, etc.). Strip steel is used to manufacture springs and suspension components for specialised machinery. Mill 370 also produces billets for grinding balls. Coils are used for making wire for a wide range of applications (including welding wire, mattress springs, electrode rods), metal cord, cables and cold-worked rebars.

Shaped, strip, square and hexagonal rolled steel, circles with a diameter of 16-50 mm and rebars Nos 12-40 are produced in rods with a length of 5 to 12 metres. Coils and round long products with a diameter of 10-31 mm are produced in coils weighing up to 2,200 kg.

**Cold-rolled steel**

• Sheets (used for the manufacture of automotive parts, aircraft, automotive and machine manufacturing, marine vessels, instrumentation and construction, the manufacture of corrugated steel, as well as sheets with an additional polymer coating, cold forging and construction, etc.).

• Bands (used to produce various metal structures, machine parts, manufacturing moulded parts, constructions for the production of road barriers, as well as uses in packaging for goods and equipment for various purposes, and also pipe production, bearings, etc.).

• Coils (used to produce forged parts for the manufacture of car bodies, construction, household appliances, etc.).

• Electrolytic tin plating, black tin (used for making all kinds of containers for storing food, beverages, perfumes, chemical paint and varnish and other materials, and also used in radio electronics, instrument making and engineering).

• Galvanised sheet (used in the construction of roofs of residential buildings, wall cladding, enclosing structures, automotive manufacturing and the construction of supporting structures).

• Galvanised baling strips (used for packaging goods and equipment).

• Coated rolls and sheets (used in construction and engineering, roofing, sandwich panels, various types of corrugated steel, siding, metal shingles, mounting profiles, the manufacture of smoke extraction and drainage systems and other key parts required for operations in harsh environments or in high humidity).
Meeting MMK’s supply needs

Market for raw materials

In 2018, the price of iron ore (62% Fe) decreased by USD 2/tonne (2%) y-o-y; however, global prices for 65% Fe iron ore increased USD 5/tonne (31%) y-o-y. The price for pellets in the Atlantic region (deliveries mainly to Europe) increased by USD 15/tonne (34%), while the price for pellets in China increased by USD 25/tonne (78%).

The Russian market reacted by renegotiating annual contracts to take into account the global trend of rising prices. This change resulted in a 16% increase y-o-y for pellets and 12% for sinter raw materials; MMK’s weighted average purchase price for pellets rose by 8%, while the price for sinter raw materials grew 10%.

The Russian market also saw a 14% increase y-o-y, with MMK’s weighted average purchase price increasing 8%.

The price for imports of scrap metal into Turkey (CFR) rose by USD 39/tonne (13%) y-o-y, while the price of scrap supplied to Turkey from the Black Sea region grew by USD 48/tonne (17%). Prices for substitute products also increased: cast iron was up USD 42/tonne (13%), and hot-briquetted iron increased by USD 48/tonne (17%).

The rise in export prices, the corresponding increase in export volumes (up 17%) and growth in consumption volumes (up 5%) led to higher prices in the domestic market: up 26% for products for export and 22% for products aimed at domestic consumers. The increase in prices for MMK corresponded to the increase in prices for domestic consumers.

Interaction with suppliers

In all of its operations, MMK strives to comply with applicable laws, contractual obligations and good business practices.

MMK’s official website (http://www.mmk.ru) is a digital resource that provides comprehensive information about requirements concerning raw materials and natural resources, as well as related services, tenders and electronic trading, suppliers and goods and services to be provided.

One of the basic principles of interaction with contractors and suppliers is the arrangement of long-term, mutually beneficial cooperation.

Constructive bilateral dialogue with key suppliers of raw materials, as well as the development and timely adoption of mutually beneficial agreements, substantially mitigated the adverse impact of market conditions on MMK’s production-related activities.

Self-sufficiency in raw materials

MMK’s use of its own iron ore in production amounted to 19% in 2018; the share of coal purchased by MMK from its subsidiary MMK-Ugol for the production of metallurgical coke totalled 38%.

To reduce the risk of adverse changes in the supply of iron ore, MMK Group previously concluded long-term contracts with major suppliers.

Long-term contracts

The following are MMK’s key suppliers providing fixed supply volumes:
• ERG Sales AG (JSC SSGPO, Kazakhstan) – long-term contract with MMK has been prolonged until 2020 inclusive. The supply volumes of iron ore pellets and concentrate under the contract were 7.6 million tonnes for 2018 and will be 8.7 million tonnes per year in 2019 and 2020;

• Metalloinvest Holding (Mikhailovsky MPP and Lebedinsky MPP, Russia) – long-term contracts with MMK in effect until Q1 2019 inclusive. Supply volumes of iron ore pellets and concentrate under the contracts include 4.3 million tonnes in 2018 and 1.25 million tonnes in the Q1 of 2019;

• MMK-Ugol – contract with MMK is valid until the end of 2019. In 2018, 2.6 million tonnes of coal concentrate were supplied to MMK, and supplies of 2.6 million tonnes are planned for 2019.

• Novatek-Chelyabinsk LLC has a long-term contract with MMK through the end of 2022; in 2018, shipments of natural gas amounted to 3,202 million cubic metres.

• Gazprom Mezhregiongaz Kurgan LLC has a long-term contract with MMK that is valid until the end of 2027; the volume of supplies in 2018 was 996 million cubic metres.

Natural gas supplies under long-term contracts with Novatek-Chelyabinsk and Gazprom Mezhregiongaz Kurgan meet 100% of MMK’s needs.
Risk management

Financial and economic activities are always subject to various risks. MMK’s risk-oriented thinking helps us achieve our goals by aiming to prevent adverse effects and to make the most of emerging opportunities.

MMK was one of the first Russian steelmaking companies to develop and implement an integrated risk management system in line with international best practices in risk management. Compliance with best practices has been confirmed by repeated independent assessments of the system, and recommendations for its further improvement have been implemented.

MMK’s integrated risk management system (IRMS) is an integral part of the Company’s corporate governance system. The IRMS is integrated into all of MMK’s business processes: identification, analysis (assessment) and management of risks are carried out at all levels of the Company on an ongoing basis.

For the IRMS to function effectively, a division was created at MMK that is responsible for the following tasks: developing the methodology, organising training for MMK employees and for MMK Group companies, coordinating the activities of the Company’s divisions in terms of the IRMS and generating consolidated risk reports.

The Board of Directors assumes responsibility for making decisions on the management of key risks, monitors the functioning of the IRMS and analyses the performance of the Company’s risk management. The Audit Committee oversees the reliability and performance of the risk management system.

Personnel in the Risk Management Unit are qualified risk management professionals, and they take part in in-service training and risk management conferences on a regular basis.

In December 2018, a new version of the Company’s risk management standards was adopted. In accordance with the recommendations of external auditors from SMK, these standards reflect the requirements of IATF 16949 and STO Gazprom 9001. A pilot module of the IRMS can be found in MMK’s corporate information system, which enables authorised users to keep the IRMS up to date.

<table>
<thead>
<tr>
<th>Category</th>
<th>Risk</th>
<th>Description of risk and consequences</th>
<th>Risk management</th>
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</table>
| Industry risks | Risks associated with changes in demand and in the price of steel products | MMK’s performance results largely depend on changes in demand and in the price of rolled steel and steel products.  
Globally, demand for steel in 2018 showed a positive trend. According to World Steel Association estimates, steel consumption was up 3.9% y-o-y in 2018.  
China, India and Vietnam were the leaders in terms of growth in steel production, while developed economies protected their markets from imports, stimulating demand for domestic product. The demand for MMK’s steel in foreign markets remained stable in South-east Asia, while trending downward in the Middle East due to the crisis in the Turkish | MMK has adopted the following measures to reduce the risks associated with changes in the demand for, and the prices of, its products:  
• diversification of the range of consumers;  
• active marketing policy;  
• conclusion of long-term contracts for the shipment of steel products;  
• development of its sales network;  
• reorientation of production towards products that are more marketable;  
• flexible pricing policy;  
• reduction of production costs;  
• expansion of the product mix, including through the |
In 2019, worldsteel is predicting a 1.4% upturn y-o-y in global consumption of rolled steel.

According to worldsteel, consumption in the Russian Federation in 2018 ticked upward by 1.1% y-o-y. Demand for steel was weak in Russia primarily because of stagnation in the construction industry, the country's largest consumer of metal products, as housing construction was down 3.7% y-o-y in 2018.

Worldsteel is predicting an incremental boost of 0.3% y-o-y in steel consumption in the Russian Federation in 2019.

Prices for steel in global markets reached five-year highs in early 2018 on the back of developments in China, where a programme to reduce excess steelmaking capacity, including semi-legal induction furnaces, was brought to a close in 2018. China had been implementing the programme since 2016. In the 2017/2018 winter season, the amount of ore-dressing and blast furnace processing was centrally limited for the first time ever in the country in an effort to improve the environmental situation, which led to a contraction in supply, an increase in the need for higher-quality, more expensive raw materials and, eventually, escalating costs of metal products both within China and for export.

Global steel prices began falling in August 2018, as the Chinese market for metal products became saturated due to the fast pace of steelmaking and a slowdown in the growth rate of the Chinese economy. These processes led to a drop in export prices first from China and then from Russia. In addition, the markets in developed countries were mostly closed to metal products from China and the CIS, which further toughened competition among exporters.

Russian prices in 2018 followed global trends. Since 3Q 2018, pressure on domestic prices began to rise due to declining export prices from Russia and the lack of clear growth in demand for steel in Russia. Russian steelmakers were forced to make concessions in order to retain their share of the production of unique products and HVA products.
domestic market amid deteriorating export opportunities. Global steel prices will stabilise in 2019 due to the relatively high cost of raw materials, but they will remain below the average annual 2018 prices.

Risks associated with rising prices for raw materials, services

MMK consumes a significant amount of raw materials, and raw materials account for the bulk of the Company’s production costs. MMK does not have enough of its own raw material assets and must therefore procure raw materials. Supplies of raw materials are subject to risks depending on the specific nature of each segment of the commodities markets.

World markets in 2018 generally retained the fairly high average annual prices of raw materials that were reached at the end of 2017. The key factors behind this were:

- continued significant expansion of steel production in China and the high utilisation rates on the part of Chinese steelmaking companies that were observed in addition to their substantial profitability;
- A further upsurge in demand and in prices/price premiums for high-quality raw materials to provide for the increase in productivity of steelmakers and for a reduction in specific consumption indices;
- a significant boost in the global production of electric arc furnace steel, with rising demand for scrap metal due to the continued low export volumes of steel products from China in 2018 and expanded protectionism in regional markets.

As of the end of 2018, the average annual price of the Platts iron ore index (62% Fe) was USD 69.50/tonne CFR compared to USD 71/tonne in 2017. The level of spot prices for premium grades of coking coal rose to USD 195-205/tonne FOB (depending on the direction of shipment), an increase of about 10% y-o-y, while the average annual prices of those grades under long-term contracts remained at about USD 210/tonne FOB. The average price for scrap metal in Turkey in 2018 was USD 339/tonne CFR, which was 13% higher than the average price of USD 300/tonne CFR in 2017.

MMK is taking necessary and reasonable steps to reduce this risk:

- conclusion of long-term contracts for the supply of raw materials with fixed terms and pricing formulas;
- diversification of its key raw material suppliers;
- monitoring the possibility of expanding its own raw materials base.
In 2018, steelmaking companies continued to face high prices for ferroalloys, refractory materials and graphite electrodes. Prices in the electrode market were less volatile than in 2017, as the environmental constraints in China were not as extensive. When renegotiating fixed-price long-term contracts, however, there was a considerable hike in electrode prices for consumers of at least 50% y-o-y. Significantly higher prices were observed in 2018 in global markets for vanadium (an increase of 150% in average spot prices) and molybdenum (up 50%).

Changes in demand for basic raw materials in 2019 will depend on the situation in the Chinese market. According to World Steel Association estimates, steel consumption in China in 2019 may remain at 2018 levels. The shutdown of several production facilities belonging to the world's leading producer of iron ore, Vale (Brazil), will have a major impact on the iron ore market. If the shutdown turns out to be lengthy, there are serious risks of an upsurge in average prices for iron ore in 2019, even with the stabilisation of demand for raw materials in China.

Risks associated with intra-industry competition

The domestic market is characterised by a high degree of competition among steelmaking companies. It should be noted that the steel market in Russia is characterised by a high degree of consolidation, whereby most major steelmakers are part of larger holdings. The seven largest companies (MMK, Severstal, NLMK, Evraz ZSMK, Evraz NTMK, the Chelyabinsk Metallurgical Plant and Ural Steel) account for about 70% of the production of steel products in Russia. MMK's two main competitors in Russia are Severstal and NLMK.

In the CIS market, MMK's main competitors are from Kazakhstan (ArcelorMittal Temirtau) and Ukraine (Metinvest). In global markets, its main competitors are from Ukraine, Kazakhstan, China, Turkey, the European Union and India, which are close to MMK's primary regional markets.

In addition, steel producers are also facing competition from the producers of substitute materials that are used in construction and manufacturing. The main competitiveness factors that make it possible to reduce the risks of intra-industry competition are price, quality, the ability to meet customers’ specifications and delivery schedules, production equipment, location in relation to key customers and suppliers, and more favourable transportation routes. In addition, work is ongoing to reduce costs and improve sales efficiency.
the production of packaging materials instead of steel products. The intensity of competition and the cyclical nature of steel markets could eventually lead to a substantial reduction in the Company's profits.

Country risks  Country risks  

As of January 2019, 22 measures were in force for Russian goods (including some in MMK’s product range): 12 anti-dumping duties, one price cap, nine special protective duties. Also – one special tariff, two anti-dumping duties and three special protective investigations.

There are a total of 25 measures for Russian metal products in groups 72 and 73 of the Eurasian Economic Union’s commodity nomenclature of foreign economic activity, including 15 anti-dumping duties, one price cap, nine special protective duties. Also – one special tariff, two anti-dumping duties and three special protective investigations.

In the US market, two restrictions apply to imports of metal products manufactured by MMK. Hot-rolled sheet is imported on the basis of an agreement on the suspension of anti-dumping measures. In turn, the import of hot-rolled steel in coils and thin sheets is subject to an anti-dumping duty of 73.59% on Severstal’s products and 184.56% on products made by all other Russian companies. In addition, on 23 March 2018, the US introduced a 25% import duty on steel products and a 10% duty on aluminium specifically for Russian exporters. The above duties are charged in addition to other existing measures.

In August 2016, the European Commission introduced an anti-dumping duty of 18.7% on imports of cold-rolled flat products. In addition, the Commission introduced anti-dumping duties on 7 October 2017 in amounts from EUR 17.60 to EUR 96.50 per tonne for imports of hot-rolled flat products from Brazil, Iran, Russia and Ukraine.

On 18 July 2018, the Commission decided to introduce a preliminary protective measure aimed at countering the redistribution of import flows as a result of duties imposed by the United States. The measure covers 23 categories of steel products, with the exception of products manufactured by Russian companies and for which the Anti-Dumping Court of the Russian Federation had suspended anti-dumping duties.

Country risks are taken into account when entering into contracts with non-resident companies.

The situation is constantly being monitored. MMK is making use of all legal means and methods available to challenge the decision to introduce what are in fact protective duties, and it will take all possible measures to minimise the negative consequences.
of semi-finished products, and is implemented in the form of tariff quotas. A duty of 25% will be applied only if the volume of imports exceeds the established quotas, which are determined by the average volume of imports into the EU over the past three years. In addition, in order to avoid a double effect if the tariff quota is exceeded, the current anti-dumping and countervailing duties will be replaced by a 25% tariff if the measures introduced earlier are lower; otherwise, anti-dumping and countervailing duties will be applied in the established amounts.

On 27 April 2018, Turkey's Ministry of Economy launched a special protective investigation in respect of flat hot-rolled and flat cold-rolled steel, coated steel, long products and profiled steel bars. A special protective investigation into the import of metal products into Turkey was launched without an industry request. As of now, the investigation has been extended until July 2019. On 7 June 2018, MMK provided the investigative body with the necessary materials and a memorandum with evidence of the absence of grounds for the application of protective measures and of the need to terminate the investigation. As part of this investigation, Turkey decided to introduce on 17 October 2018 a preliminary special protective measure in the form of a tariff quota for a period of 200 days. If the quota is exceeded, the customs duty will be 25%.

<table>
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<th>Social risks</th>
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| MMK’s personnel represent the Company’s core values and are its most important asset. A decline in the social well-being and the overall disposition of our personnel could negatively affect the Company’s operations. | As a socially oriented company, MMK has voluntarily committed itself to socially responsible behaviour with regard to the people of Magnitogorsk and the Urals Region. In order to strengthen its base for sustainable development, the Company implements various charitable programmes throughout the region where it operates, invests in the development of the social sphere in the city of Magnitogorsk and the surrounding region, and plays a role in the implementation of substantial public-interest initiatives. MMK has been developing and successfully implementing social programmes for its employees based on the creation of favourable conditions for the
solution any issues that may arise. Among the Company's major social concerns are medical treatment and healthcare programmes for its employees; rehabilitation of employees and their families; social support for non-working pensioners, the disabled and other categories of disadvantaged people; support for families with three or more children, and programmes to encourage families to have more children; implementation of housing and youth programmes and the organisation of cultural and sporting events, etc.

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<th>Financial risks</th>
<th>Currency risk</th>
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<tr>
<td>MMK exports a portion of its products for foreign currency, and a portion of the Company's liabilities (including loans) are also denominated in foreign currency. Thus, there is a likelihood of transactional currency risks and foreign exchange differences that impact the Company.</td>
<td>Currently, MMK's expenditures and revenues in foreign currencies are balanced, and currency fluctuations have a minimal impact on the Company's earnings. MMK takes measures to reduce natural currency risks by optimising the foreign exchange position for each currency.</td>
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<tr>
<td>Interest-rate risk</td>
<td>For MMK, interest-rate risk does not have a significant impact on the value of the Company’s equity and debt, or, consequently, on the final results of its operations. In 2018, MMK was not impacted by interest-rate risks. The share of floating-rate loans did not exceed 15% in 2018. Considering the historically low interest rates for loans denominated in euros, a substantial proportion (69%) of loans are denominated in euros with fixed and floating interest rates. Prior to September 2018, the Bank of Russia’s key rate had decreased to 7.25%, after which it rose to 7.75%, the same rate that was in effect at the beginning of the year. The change in the Bank of Russia’s key rate had an impact on interest rates for loans denominated in roubles. Market indicators, and in particular the Bank of Russia’s key rate and Euribor, are not expected to rise substantially in the near future.</td>
<td>The Company makes use of comprehensive internal financial risk management tools, which enable it to meet its obligations to creditors and reduce costs associated with the use of borrowed capital. The Company does not hedge interest and currency risks in the derivatives market. MMK takes measures to reduce its interest-rate risk by maintaining an optimal structure for its loan portfolio in various currencies in combination with the type of interest rate (fixed/floating) and monitoring the level of its interest-rate risk.</td>
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<tr>
<td>Credit risk</td>
<td>Reduced customer solvency and non-fulfilment of payment obligations might adversely impact the Company’s financial performance.</td>
<td>In order to minimise risk, customers’ credit ratings are checked when shipping goods under deferred payment, limits are set, various types of collateral are required, and factoring is carried out on payment plans.</td>
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<tr>
<td>Legal risks</td>
<td>Risks associated with changes in tax legislation</td>
<td>The Russian tax system is constantly evolving and changing. A possible increase in the Company's tax rates in the course of its production and financial activities could lead to an increase in expenses and a decrease in cash available to finance ongoing activities and meet its obligations, including on issued bonds. Practically any company in Russia could suffer potential losses as a result of claims on the part of Russian federal and regional regulatory bodies that could arise in respect of previous periods and ongoing activities.</td>
<td>MMK is one of the largest taxpayers in Russia, and its operations are based on the principles of ensuring the integrity and transparency of the information provided to the tax authorities. The Company carries out real-time monitoring of changes in tax legislation and changes in the enforcement of existing regulations. In addition, the Company is involved in the legislative process through the assessment of tax bills. MMK assesses and predicts the degree of any possible adverse effects that changes in tax legislation may have, focusing its efforts on minimising the risks associated with such changes.</td>
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<tr>
<td>Risks associated with changes in currency regulation</td>
<td>Domestic market</td>
<td>The policy of currency regulation carried out by the Russian Government can be assessed as favourable. No changes that could adversely affect MMK are expected. Foreign markets If it were necessary to increase the proportion of payments denominated in a foreign currency (dollars, euros) in export sales, the risk of exposure to changes to the laws on currency regulation or customs law would increase. However, the Company predicts that the likelihood of such negative changes is low.</td>
<td>The Company constantly monitors changes in currency legislation to evaluate their possible impact on the Company.</td>
</tr>
<tr>
<td>Risks associated with changes in customs regulations and duties</td>
<td>In carrying out procurements of raw materials and other materials and equipment from foreign suppliers and exporting its own products, MMK is subject to certain risks associated with changes in legislation in state regulation of foreign trade, as well as the customs legislation of the Eurasian Economic Union, which regulates the movement of goods across the customs border of the Eurasian Economic Union, the establishment and application of customs procedures, and the establishment, introduction and collection of customs duties.</td>
<td>The Company complies with the requirements of customs control, provides all the documents necessary for the implementation of both export and import operations in a timely manner and has sufficient financial and human resources to comply with customs rules and regulations. In case of the introduction of customs duties on certain types of imported and exported goods, MMK will take all necessary measures to reduce this risk.</td>
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<tr>
<td>Risks associated with environmental and</td>
<td>Environmental risks</td>
<td>In the course of its production operations, MMK emits pollutants into the atmosphere, discharges pollutants into bodies of water and</td>
<td>The Company operates in respect of environmental protection in accordance with Russian Federation legislation and the</td>
</tr>
</tbody>
</table>
occupational health and industrial safety

disposes of industrial waste. Therefore, the Company is subject to significant environmental risks. requirements of ISO 14001:2015, “The Environmental Management System”, which is confirmed by the relevant certificate.

MMK has all the approvals and permits related to environmental protection:
- atmospheric pollutant emission permit;
- water pollutant discharge permit;
- waste generation standards and waste disposal limits;
- decision on the granting of water bodies for use;
- licence for waste management activities;
- certificates of accreditation for laboratories performing environmental monitoring;
- licence for environmental monitoring activities (air, surface water).

MMK’s management and personnel view minimising the Company’s adverse impact on the environment as a strategic goal and a key element of its long-term sustainable growth, and production operations are carried out with an understanding of MMK’s environmental impact.

As part of the implementation of Decree No 204 of the President of the Russian Federation on the National Goals and Strategic Objectives for the Development of the Russian Federation for the Period up to 2024, the Russian Government approved at the end of 2018 the Comprehensive Action Plan to Reduce Emissions of Pollutants into the Atmosphere in the City of Magnitogorsk. MMK’s initiatives included in the Plan are crucial, and their implementation will reduce emissions by 18.48 thousand tonnes (including emissions of Benzo[a]pyrene by 90%, formaldehyde by 89% and phenol by 67%). MMK initiatives included in the Plan imply investment commitments of RUB 22.13 billion by 2024.

All investment projects implemented by MMK undergo a state environmental review and public hearings on environmental issues.

MMK’s Board of Directors conducts an annual review of the implementation of environmental policies and measures to minimise its environmental impact, thereby enabling the effective
management of environmental risks.

MMK has not been charged with any violations of the legal requirements in the field of environmental protection that could materially affect the Company’s financial and economic activities.

<table>
<thead>
<tr>
<th>Risks of occupational health and industrial safety</th>
<th>The issue of occupational health and industrial safety is relevant for MMK as an integrated steelmaking company with a large number of hazardous production facilities and complex production equipment and processes.</th>
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<td></td>
<td>The management of engineering and production risks at MMK is carried out as part of the Company's occupational health and industrial safety management system, which has repeatedly been certified for compliance with the OHSAS 18001 standard. The strategic objective of MMK's policy in the sphere of industrial safety is the complete elimination of fatal accidents and the attainment of a leading position among steelmaking companies in regard of key indicators in the field of occupational health and industrial safety, and the continuous improvement of safety standards. MMK pays close attention to occupational health and industrial safety, the establishment of healthy and safe working conditions and providing personnel with the necessary personal protective equipment. In accordance with its policy in the sphere of occupational health and industrial safety, MMK is constantly improving its system of occupational health and industrial safety, considering it one of the pillars of the Company's sustainable development. One of the Company’s goals is the gradual reduction of occupational injuries, accidents and occupational diseases. Under the leadership of the trade union committee, there is a system of public oversight in the Company's production divisions that is carried out by those responsible for occupational health and safety. A special assessment of working conditions, medical examinations and training for personnel on occupational health and industry safety are conducted every year. The annual costs for occupational health and safety, including the improvement of employees’ working conditions, amount to hundreds of millions of Russian roubles.</td>
</tr>
</tbody>
</table>
Human Resources

The Company's human resources strategy, which ensures MMK Group's effective performance, is based on the following core principle: employees with sufficient skills and the necessary professional qualifications are central to providing for the Company's long-term competitive advantages in the industry. The preservation and development of human resources are ensured through continuous professional and managerial training, ongoing cooperation with educational institutions in Magnitogorsk and in Russia as a whole, and also with international organisations.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of employees</td>
<td>17,955</td>
<td>17,887</td>
</tr>
<tr>
<td>Total payroll, RUB thousands</td>
<td>12,646,514</td>
<td>13,250,304</td>
</tr>
<tr>
<td>Average monthly wage, RUB</td>
<td>58,545</td>
<td>61,526</td>
</tr>
<tr>
<td>Labour productivity (tonnes/person)</td>
<td>66.7</td>
<td>68.2</td>
</tr>
<tr>
<td>Labour productivity (RUB ths of commercial product/person)</td>
<td>1,835.2</td>
<td>2,154.4</td>
</tr>
<tr>
<td>Subsistence minimum for the able-bodied population of the Chelyabinsk Region, RUB per month</td>
<td>12,820</td>
<td>13,278</td>
</tr>
<tr>
<td>Ratio exceeding the subsistence minimum</td>
<td>4.57</td>
<td>4.63</td>
</tr>
</tbody>
</table>

Support for talented young people

In order to successfully attract and retain talented employees, MMK has set up production and pre-graduation training for students, providing them with opportunities to acquire practical skills adding to their qualifications upon graduation.

Through internships in 2018, 319 students had an opportunity to participate directly in the manufacturing process, where they acquired practical skills at the production facilities of MMK Group companies.

In May 2018, work was completed on MMK’s Eighteenth International Scientific and Technical Conference of Young Specialists, aimed at developing the scientific potential of personnel. The conference was held in three stages: 153 young specialists from the Company took part in the final stage, while 20 people from outside Magnitogorsk took part in the intercity stage. As in previous years, the conference participants were visionary young people, whose scientific and technical development could have a real economic impact on the implementation of projects in the Company's production and management activities.

In order to promote and enhance the prestige of working-class professions among young people, MMK held a competition for 32 different professions called MMK’s Best Young Worker by Profession.

Staff development

In order to develop employees’ skills and prepare a staff reserve for the Group, MMK is continuously carrying out staff training through a variety of educational programmes.

Managers at various levels are trained at leading Russian and international business schools after passing a competitive selection procedure. Employees at MMK Group's production facilities receive training in a second specialisation and also take part in courses to improve their qualifications. As part of the development of the Group’s management capacity, it co-operates with leading Russian financial and management schools’ MBA programmes. To expand and develop the skills of Group employees, regular on-the-job training is provided to give workers opportunities in other divisions, which then makes it possible for Group companies to fill staffing vacancies through their own personnel.
**Human resources capacity-building**

The main sources of qualified workers and specialists for the Group are two institutions of higher learning: the Polytechnic College and the Nosov Magnitogorsk State Technical University, which produce graduates in more than 50 trades and professions.

Due to the fundamental knowledge gained at these training centres, MMK Group continues to occupy a leading position among industrial enterprises.

Some 83.9% of the Group's employees have vocational education. MMK is easily among the industry leaders in terms of the number of employees with higher education. In 2018, 446 graduates with vocational education were hired for production positions at MMK.

**Diversity and equal opportunities**

MMK Group’s employees include individuals of different ages, length of service and education levels, 30.7% of whom are women. Women and men have equal opportunities for career advancement in our Company, depending on their education, skills and professional knowledge. There are equal numbers of men and women working in managerial, professional and staff positions at our plants.

As a socially oriented enterprise, MMK Group continues to employ persons with disabilities and takes their physical abilities and health into account.

**Occupational safety**

In accordance with MMK Group’s Development Strategy, one of the Company’s top priorities is production safety, the most important aspect of which is ensuring healthy and safe working conditions, as well as industrial safety.

To achieve this, the Company has announced a strategic initiative: a zero-tolerance policy for safety violations.

MMK's Policy in the Field of Industrial Safety and Occupational Health includes the following strategic goal: the complete elimination of fatal accidents and becoming a leader among steelmaking companies in terms of key indicators in the area of occupational health and industrial safety, continuous improvement and raising workplace safety standards.

**Creating a safe working environment**

Efforts to ensure healthy and safe working conditions for employees are undertaken by management in collaboration with the trade union and medical staff in accordance with the provisions of Russian legislation, MMK’s collective bargaining agreement and other legal acts establishing requirements in the area of occupational health and industrial safety. Protecting and improving the health of workers is ensured by a wide range of organisational, technical, sanitary and preventive measures.

The most important element in ensuring occupational safety is the effective functioning of the occupational health and industrial safety management system. The system was audited in August 2018 for compliance with the OHSAS 18001:2007 standard. The international certification body TÜV NORD CERT issued certificate of conformity No 04 116 022 041 on 26 October 2018.

Systematic efforts are made to assess working conditions and to identify possible hazards for employees, the results of which are developed into technical measures that are implemented with the aim of reducing the risk of accidents and occupational diseases.

MMK carries out every aspect of the steelmaking process, which is characterised by a variety of occupational hazards and dangers that could affect the health of employees.

In 2018, there were 48 accidents at MMK, including one fatal accident and two other serious accidents. In 2017, there were 48 accidents involving 50 employees, including one fatal accident and two other serious accidents. LTIFR index across MMK Group, including
Measures to improve safety

Taking into account that the vast majority of accidents are caused by human negligence, MMK, in accordance with the best practices in this area, has focused on working with staff. For this purpose, the following was done:

1. A staff incentivisation system on occupational safety has been introduced that is based on staff teams identifying breaches of occupational safety requirements and registering them in the system. This initiative has been implemented in 19 structural divisions, where criteria for assessing compliance with occupational health and safety requirements have been determined, compliance indicators have been established, and amendments to the provisions on employee remuneration have been made. The system also covers contractors, and electronic monitoring forms for the staff teams have been developed.

2. In order to incentivise managers, a system has been developed to evaluate their work in meeting the requirements of occupational health and safety in production departments. The system includes a variety of managers, from senior craftsmen to deputy heads of production departments. Based on the results of occupational health and safety inspections, an integrated occupational safety index is determined and compared with established standards. Whether or not this standard is met has an impact on the bonuses paid to managers.

3. The Company's Safety School was launched in 2018, where blue-collar workers improve their skills in areas such as working at heights, fire safety, first aid and working in areas where there is a gas hazard. Computerised testing is conducted to assess what staff members have learned. In 2018, 2,378 employees underwent training at the Safety School.

4. To conduct the annual assessment of knowledge about occupational health and safety through computerised testing in 2018, five computer classes were organised at MMK's production facilities.

5. In 2018, a competition was held for teams made up of both production workers and management called Safety Isn't Work, It's a Way of Life!

6. In 2018, operational reports on accidents were distributed to all corporate e-mail account holders. A section on occupational health, industry safety and the environment was added to the My MMK app, which enables users to receive feedback from competent specialists.

7. Video instructions were created on how to move properly up and down flights of stairs.

8. A global flash mob on the subject of “taking safety home” was organised for Occupational Health Day.

9. A competition was held to award prizes from MMK’s CEO in the categories of safety, the environment and health. The winners and runners-up were awarded trophies, diplomas and cash prizes.

10. The procedure for conducting behavioural safety audits is included among the Company’s corporate standards. Behavioural safety audits are carried out in all production departments. During these audits, staff are interviewed, and their suggestions for improvement are recorded. Workers who commit substantial violations of standards on occupational health and industrial safety go before the occupational health and safety commission, where a decision is made concerning disciplinary measures.

11. In the event of violations of standards on occupational health and industrial safety by employees of contractors while working at MMK facilities or on MMK grounds, reports on the discovery of violations are drawn up that are then considered at a
meeting of the commission, where decisions are made about the potential application of penalties to these contractors. In 2018, 259 reports were reviewed, and RUB 17.8 million in fines were imposed.

12. Employees of the Occupational Health and Industrial Safety Division carried out combined inspections of occupational health and industrial safety departments in accordance with checklists and took photos of any violations that were discovered. Photos were also taken to confirm that violations had been rectified. The results of inspections were discussed at production meetings conducted by the deputy director for production, where the head of the relevant department reported on the causes of violations and the measures taken. The results of inspections were documented using the Shop Assessment automated information system.

13. An automated incident management module enables more objective accident investigations to be tested and implemented. The module is currently being prepared for use in all of MMK’s production departments.

14. Within the framework of the "Programme of Technical Measures Aimed at Reducing the Risk of Accidents", 45 measures were implemented in 2018.

15. In the framework of the Agreement on Occupational Health in 2018, 64 measures were taken to improve working conditions, reduce occupational risks and prevent occupational diseases.

As decided by MMK's Board of Directors, the priority activities in the area of occupational health and industrial safety for 2019 were approved:

1. Instituting a unified system for evaluating MMK's employees and division heads (combining incentivisation systems and the integrated safety index).

2. Developing behavioural safety audits for employees of all levels and for contractors, along with the completion of the mobile app.

3. Continuing the implementation of initiatives to streamline documentation related to MMK's occupational health and industrial safety management system and the creation of the Master's automated work station.

4. Introducing additional requirements for contractors operating on MMK grounds.

5. Scaling the incident management module for MMK Group companies with the addition of functionality for the investigation of minor injuries.

6. Developing psychological testing to identify risks among personnel.

7. Implementing a programme of technical measures aimed at reducing the risk of accidents.

8. Developing a concept aimed at improving the quality of industrial medical examinations.


10. Implementing a programme of measures to ensure that MMK's occupational health and industrial safety management system is in compliance with the requirements of ISO 45001:2016.

11. Improving the system of oversight of the technical condition of buildings and structures using state-of-the-art technologies (unmanned aerial vehicles).

### Actual costs of occupational safety.

<table>
<thead>
<tr>
<th>No</th>
<th>Description of costs</th>
<th>2017</th>
<th>2018</th>
<th>+, –</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Treatment and preventive care, including:</td>
<td>71.6</td>
<td>80.6</td>
<td>+9.0</td>
</tr>
<tr>
<td>1.1</td>
<td>Medical examinations</td>
<td>49.0</td>
<td>58.8</td>
<td>+9.8</td>
</tr>
<tr>
<td>1.2</td>
<td>Purchase of first-aid kits, medical supplies</td>
<td>0.4</td>
<td>0.2</td>
<td>-0.2</td>
</tr>
<tr>
<td>1.3</td>
<td>Preventive nutrition</td>
<td>2.3</td>
<td>2.3</td>
<td>± 0</td>
</tr>
<tr>
<td>1.4</td>
<td>The provision of beverages (sparkling mineral water, tea, milk or other equivalent food products (fruit drinks, vitamin drinks))</td>
<td>19.9</td>
<td>19.2</td>
<td>-0.7</td>
</tr>
<tr>
<td>2</td>
<td>Assessment of workplaces with respect to working conditions, production laboratory inspections</td>
<td>21.3</td>
<td>19.6</td>
<td>-1.7</td>
</tr>
<tr>
<td>3</td>
<td>Disinfection, deratisation costs</td>
<td>2.3</td>
<td>2.3</td>
<td>± 0</td>
</tr>
<tr>
<td>4</td>
<td>Safety signs</td>
<td>2.5</td>
<td>1.8</td>
<td>-0.7</td>
</tr>
<tr>
<td>5</td>
<td>Consulting services related to the system of occupational health and industrial safety</td>
<td>3.4</td>
<td>5.6</td>
<td>+2.2</td>
</tr>
<tr>
<td>6</td>
<td>External audit</td>
<td>0.8</td>
<td>0.3</td>
<td>-0.5</td>
</tr>
<tr>
<td>7</td>
<td>Training and assessment of employees’ knowledge regarding compliance with the requirements of the occupational health and industrial safety system</td>
<td>14.1</td>
<td>14.4</td>
<td>+0.3</td>
</tr>
<tr>
<td>8</td>
<td>Current PPE costs, including:</td>
<td>222.5</td>
<td>237.4</td>
<td>+14.9</td>
</tr>
<tr>
<td>8.1</td>
<td>PPE costs (write-off)</td>
<td>212.0</td>
<td>225.3</td>
<td>+13.3</td>
</tr>
<tr>
<td>8.2</td>
<td>Washing, drying, repairing PPE</td>
<td>2.9</td>
<td>2.4</td>
<td>-0.5</td>
</tr>
<tr>
<td>8.3</td>
<td>Detergents</td>
<td>7.6</td>
<td>9.7</td>
<td>+2.1</td>
</tr>
<tr>
<td>9</td>
<td>Organisational and technical measures (including equipment) to improve conditions and consumer services</td>
<td>305.7</td>
<td>291.2</td>
<td>-14.5</td>
</tr>
<tr>
<td>10</td>
<td>Salaries of employees of the Occupational Health and Industrial Safety Division</td>
<td>32.4</td>
<td>34.6</td>
<td>+2.2</td>
</tr>
<tr>
<td></td>
<td>Total occupational health and safety costs</td>
<td>679.7</td>
<td>688.0</td>
<td>+8.3</td>
</tr>
<tr>
<td></td>
<td>% of occupational health and safety costs in production expenses:</td>
<td>0.22</td>
<td>0.20</td>
<td>-0.02</td>
</tr>
</tbody>
</table>
Environmental protection

**Procedures used by senior management to oversee the organisation's assessment of its environmental performance**

MMK’s top management continuously evaluates the Company’s environmental performance. For this purpose, a quarterly analysis of the environmental management system is carried out. The results of this analysis are then reviewed at a meeting of the Council on Quality, Environment, Industrial Safety and Occupational Health.

The Board of Directors conducts a review of MMK’s Environmental Policy every year.

**Environmental organisations**

The environmental and energy rating agency Interfax-ERA published environmental ratings for the top 150 companies in Russia in 2018 ([https://interfax-era.ru/reitingi/2018/top-150](https://interfax-era.ru/reitingi/2018/top-150)). The following five figures are factored into fundamental performance:

- energy and resource efficiency of production (energy, resources, waste, emissions, waste per unit of output or work);
- technological performance (resources, waste, emissions, waste per unit of energy expended);
- ecosystem performance (resources, waste, emissions, waste per hectare of sustainable ecosystems);
- performance dynamics (change in relation to the previous year),
- transparency (% of the disclosed indicators).

The integrated ranking of the 150 largest companies in Russia and Kazakhstan in 2018 put MMK in 36th place (up from 54th in 2017), while Severstal was ranked 101st (103rd in 2017) and NLMK was 76th (44th in 2017).

**The environment and conservation**

In planning for its long-term and sustainable development, MMK always pays a great deal of attention to issues of environmental safety and improvement of its environmental management system.

MMK’s production activities comply with both Russian environmental protection laws and ISO 14001:2015 international standards.

Currently, the environmental safety of MMK’s production activities is ensured by a number of environmentally friendly facilities, including:

- 276 gas scrubbers (mainly sock filters and electro-filters), as well as wet scrubbers (hollow scrubbers and high-velocity washers);
- 45 local water recirculation machines and 55 waste-water treatment plants (radial and horizontal settling tanks, neutralising stations, cooling tanks);
- 16 specialised facilities for processing industrial waste.

MMK's current expenses for environmental protection (capital and ongoing repairs of environmental facilities, technical maintenance of environmental facilities, reclamation and recultivation, waste disposal, industrial environmental monitoring, etc.) amounted to RUB 3.1 billion in 2018.

**Environmental management system**

MMK’s environmental management system (EMS) is one of the main elements of the Company’s overall management system, and aims to reduce the Company’s environmental impact.
Since 2004, MMK has been implementing and successfully operating an environmental management system certified for compliance with the ISO 14001 international standard. From 13 to 17 August 2018 (in accordance with Order No GD-01/290 of 23 July 2018), a certification audit of MMK’s environmental management system was conducted to verify compliance with the 2015 edition of the ISO 14001 international standard. Based on the results of the audit, which was conducted by established certification body TÜV NORD CERT GmbH (Germany), pig iron production was included in the certification of the Company’s EMS. The audit concluded that the EMS was performing well.

As of the end of 2018, the certification of MMK’s environmental management system included the processing and production of sinter, limestone, lime, dolomite, gravel; coke and coke-chemical products; steel; continuous-cast slabs for hot rolling; hot-rolled and cold-rolled coils and sheets; long steel products; cold-rolled strip; tin; galvanised steel; coated steel, rolled products for the automotive industry, electro-fused and galvanised pipes; formed steel sections; electricity and heat-transfer agents.

**Environmental Policy and performance**

Following a decision by MMK’s Board of Directors and an order from the CEO, a new Environmental Policy has entered into force. It is publicly available to all interested parties. The policy is based on MMK’s development strategy and is aimed at developing the Company’s production capacity while minimising environmental impact to meet the needs of present and future generations in a healthy environment.

MMK has positioned itself as Russia’s leading steelmaker in implementing cutting-edge technologies.

An indispensable element in MMK’s strategy for its long-term and sustainable development is ongoing reduction and prevention of its harmful impact on the environment.

MMK’s goals in key areas of environmental protection are as follows:

- By 2025, to reduce the Comprehensive Air Pollution Index (CAPI) score in the city of Magnitogorsk to the level of 5 units;
- To achieve by 2025 technological standards for environmental impact corresponding with the best available technologies recommended for implementation in Russia;
- To fully eliminate discharges of industrial waste water into surface water by 2025;
- To provide the best possible waste management and storage of all wastes in hazard classes 3, 4 and 5 in environmentally safe facilities;
- To complete the reclamation of iron ore pits and slag dumps.

To implement the Company’s Environmental Policy, a long-term MMK Environmental Programme until 2025 was approved and adopted for implementation. The measures that were introduced through this programme to reduce the Company’s impact on the environment require substantial capital investments.

Annual targets for environmental protection are established to develop the Company’s Environmental Policy.

**Implementation of MMK's environmental protection targets in 2018**

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Planned 2018</th>
<th>Actual 2018</th>
<th>Implementation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reduction of the CAPI score in the city of Magnitogorsk, units</td>
<td>11.8</td>
<td>9.0</td>
<td>124</td>
</tr>
</tbody>
</table>
In order to achieve its stated environmental targets for the year, MMK developed an Environmental Programme for 2018 that included 84 measures in the Company’s main areas of environmental activities:

- 45 measures to reduce and prevent emissions of pollutants into the atmosphere;
- 26 measures to reduce and prevent discharges of pollutants into surface water;
- 13 measures for recycling and environmentally safe waste disposal, as well as land reclamation.

In accordance with our Environmental Programme, 69 technical measures of varying degrees of complexity were completed in 2018, and work on the other 15 will continue in 2019.

Actual costs for the implementation of MMK's Environmental Programme in 2018 amounted to RUB 6,463.8 million (including RUB 5,845.5 million for capital construction), including:

|   | Gross emissions of pollutants into the atmosphere  
<table>
<thead>
<tr>
<th></th>
<th>thousand tonnes/year</th>
<th>198.5</th>
<th>198.2</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Specific emissions of dust into the atmosphere, kg/tonne of steel</td>
<td>1.85</td>
<td>1.75</td>
<td>105</td>
</tr>
<tr>
<td>4</td>
<td>In December 2018, after completing the closed-circuit water supply system, to terminate the discharge of waste water into the Magnitogorsk Reservoir through main releases No 1 and No 7</td>
<td>Termination of discharges in December 2018</td>
<td>Termination of discharges on 23 November 2018</td>
<td>100</td>
</tr>
</tbody>
</table>
| 5 | To reduce the concentration of pollutants in the outlet from the sediment basin at the mouth of the northern channel of the waste-water drainage to:  
|   | petroleum products, mg/litre; | 0.1 | 0.12 | 87 |
|   | iron, mg/litre; | 0.5 | 0.53 |  |  |  |
|   | ammonium nitrogen, mg/litre. | 1.0 | 1.14 |  |  |  |
| 6 | Construction of an installation to process wastes from the lubricating and cooling liquids used in rolling mills, RUB mln/year | 144 | 73 | 49 |
| 7 | Recycling (operating and waste) metallurgical slag, mln tonnes/year | 9.478 | 9.995 | 105 |
| 8 | Using wastes as secondary material resources in sinter production, mln tonnes/year | 1.836 | 2.109 | 115 |
| 9 | Performing the technical stage of land reclamation (second phase of the Western pit), hectares | 2.4 | 3.05 | 127 |
| 10 | Maintenance of previously reclaimed area, hectares | 15.4 | 15.4 | 100 |
• RUB 4,320.9 million on reducing emissions into the atmosphere (including capital construction worth RUB 3,776.9 million);
• RUB 896.9 million on reducing emissions into surface water (including capital construction worth RUB 840.9 million);
• RUB 1,246.0 million on industrial waste recycling and reclamation (including capital construction worth RUB 1,227.7 million).

**Key environmental protection measures implemented under MMK’s Environmental Programme in 2018**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Execution period</th>
<th>Investments RUB million</th>
<th>Environmental impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2018</td>
<td>Total</td>
</tr>
<tr>
<td><strong>Blast furnace shop</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconstruction of the aspiration systems for blast furnace No 1 (casting beds and stock houses)</td>
<td>2017-2018</td>
<td>777</td>
<td>1,238</td>
</tr>
<tr>
<td><strong>Blast furnace shop</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconstruction of the aspiration systems for blast furnace No (stock houses)</td>
<td>2018</td>
<td>462</td>
<td>462</td>
</tr>
<tr>
<td><strong>Central water system</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconstruction of the closed-circuit water supply system with the expansion of the cooler tank (with an automated control system for discharge and stocking of fish)</td>
<td>2016-2018</td>
<td>351</td>
<td>661</td>
</tr>
<tr>
<td><strong>Ore-dressing facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction of an iron tailings enrichment line</td>
<td>2017-2018</td>
<td>1,049</td>
<td>1,863</td>
</tr>
<tr>
<td><strong>Ore-dressing facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical stage of land reclamation (second phase of the Western pit)</td>
<td>2018</td>
<td>10.3</td>
<td>10.3</td>
</tr>
</tbody>
</table>

MMK’s senior management team provides constant support for and plays a leading role in the efficient operation of MMK’s environmental management system.

MMK’s CEO is responsible for the environmental management system. The person responsible for ensuring environmental oversight of industrial production is the Director for
Occupational Health, Industrial Safety and the Environment. The Council on Quality, Environment, Industrial Safety and Labour Safety, which includes the directors in each of these areas, is headed by MMK’s CEO.

At MMK, the oversight function for compliance with environmental legislation and ISO 14001:2015 international standards is performed by the Environmental Protection Laboratory under the Director for Occupational Health, Industrial Safety and the Environment. A total of 68 staff work at the Laboratory, which has been accredited for its technical competence under the Gosstandart accreditation system of analytical laboratories (centres).

**Emissions into the atmosphere**

Reducing air pollution is a priority for MMK’s environmental activities. Emissions from the sintering shop, blast furnace plant, power plants and from coke production have the most significant impact on the atmosphere. The main pollutants emitted into the atmosphere as a result of MMK’s production activities include particulate matter (dust), nitrogen dioxide, ammonia, hydrogen sulphide, sulphur dioxide, carbon monoxide and phenol.

<table>
<thead>
<tr>
<th>No</th>
<th>Pollutant</th>
<th>Volume of pollutants discharged into the atmosphere, tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2017</td>
</tr>
<tr>
<td>1</td>
<td>Particulate matter (dust)</td>
<td>23,165</td>
</tr>
<tr>
<td>2</td>
<td>Nitrogen dioxide</td>
<td>10,380</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur dioxide</td>
<td>9,370</td>
</tr>
<tr>
<td>4</td>
<td>Carbon monoxide</td>
<td>150,374</td>
</tr>
<tr>
<td>5</td>
<td>Phenol</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td><strong>Total emissions</strong></td>
<td><strong>199,284</strong></td>
</tr>
</tbody>
</table>

Total emissions in 2018 amounted to 198.2 thousand tonnes, with specific emissions per tonne of steel coming to 17.37 kg/t.
Discharges of pollutants into surface water

<table>
<thead>
<tr>
<th>No</th>
<th>Pollutant</th>
<th>Amount discharged into surface water, tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2017</td>
</tr>
<tr>
<td>1</td>
<td>Ferrum, total</td>
<td>25.9</td>
</tr>
<tr>
<td>2</td>
<td>Manganese</td>
<td>5.6</td>
</tr>
<tr>
<td>3</td>
<td>Petroleum products</td>
<td>27.7</td>
</tr>
<tr>
<td>4</td>
<td>Fluorides</td>
<td>228.3</td>
</tr>
<tr>
<td>5</td>
<td>Zinc</td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total emissions</strong></td>
<td><strong>62,178</strong></td>
</tr>
</tbody>
</table>

*The table shows the main pollutants.

In 2018, total discharges into surface water amounted to 59.9 thousand tonnes, with specific discharges of pollutants per tonne of steel totalling 5.24 kg/t.

**Waste management**

In the course of the production process, MMK’s facilities generate industrial wastes from hazard classes 1-5. Throughout 2018, wastes from hazard classes 3, 4 and 5 were placed in specialised facilities for storage and disposal. Wastes from hazard classes 1 and 2 were neutralised.

<table>
<thead>
<tr>
<th>Type of wastes</th>
<th>Waste storage in 2017, tonnes</th>
<th>Waste storage in 2018, tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Class 2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Class 3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Class 4</td>
<td>60,922.5</td>
<td>59,063.6</td>
</tr>
<tr>
<td>Class 5 (without waste ore)</td>
<td>1,259,884.9</td>
<td>1,139,722.5</td>
</tr>
<tr>
<td><strong>TOTAL (without waste ore)</strong></td>
<td><strong>1,320,807</strong></td>
<td><strong>1,198,786</strong></td>
</tr>
</tbody>
</table>
Waste treatment and recycling

MMK pays significant attention to a comprehensive programme of work to recycle industrial waste from its own production and to the reclamation of depleted pits at Magnitnaya Mountain.

<table>
<thead>
<tr>
<th>No</th>
<th>Waste treatment and recycling</th>
<th>Amount of waste, million tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2017</td>
</tr>
<tr>
<td>1</td>
<td>Total sintering slag processed, including:</td>
<td>11.43</td>
</tr>
<tr>
<td></td>
<td>- operating steelmaking</td>
<td>2.33</td>
</tr>
<tr>
<td></td>
<td>- operating blast furnace, including</td>
<td>3.52</td>
</tr>
<tr>
<td></td>
<td>- granulator</td>
<td>1.35</td>
</tr>
<tr>
<td></td>
<td>- steelmaking dump</td>
<td>4.71</td>
</tr>
<tr>
<td></td>
<td>- blast furnace dump</td>
<td>0.88</td>
</tr>
<tr>
<td>2</td>
<td>Shipped to consumers of slag processing products</td>
<td>1.33</td>
</tr>
<tr>
<td>3</td>
<td>Pieces of metal retrieved from slag</td>
<td>1.08</td>
</tr>
<tr>
<td>4</td>
<td>Slag and wastes used for reclamation of abandoned open-pit mines at Magnitnaya Mountain</td>
<td>10.28</td>
</tr>
<tr>
<td>5</td>
<td>Industrial waste used in GOP sinter mix</td>
<td>2.35</td>
</tr>
</tbody>
</table>
### Reclamation of damaged land and planting greenery

From 2012 through 2017, the first stage of the reclamation of 154 thousand square metres of damaged land in the abandoned West iron ore pit at Magnitnaya Mountain was carried out. A fertile layer was formed, and vegetation and perennial grasses were planted. Since 2012, a total of 5.9 thousand saplings and 6.7 thousand shrubs have been planted.

In 2018, work was carried out in maintaining the greenery planted in the first stage of reclamation. Work continued in 2018 on the second stage of reclamation, with a fertile layer prepared for planting greenery on an area of 94.7 thousand square metres (including 30.5 thousand square metres in 2018).

MMK financed the planting of 2,300 saplings (maple, birch, rowan and spruce) and 3,250 bush seedlings (cotoneaster) in parks and garden squares and on the grounds of educational institutions in the city of Magnitogorsk.

### Inspections by state bodies regarding incidents at environmental protection facilities

The Department of the Russian Environmental Monitoring Service for the Chelyabinsk Region fined MMK RUB 90,000 in 2018.

As of 31 December 2018, no legal claims seeking the suspension of activities or revocation of permits had been filed against MMK in regard of environmental protection or for causing environmental damage.

In 2018, MMK made payments in the amount of RUB 37 million, which was paid in full, for environmental pollution.

### Cost of environmental activities

<table>
<thead>
<tr>
<th>Type of charges</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital construction</td>
<td>4,157.8</td>
<td>5,845.5</td>
</tr>
<tr>
<td>Capital repairs</td>
<td>109.3</td>
<td>71.2</td>
</tr>
<tr>
<td>Ongoing (operating) costs</td>
<td>2,643.8</td>
<td>2,903.0</td>
</tr>
<tr>
<td>Payment for environmental protection services</td>
<td>134.6</td>
<td>147.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,045.5</strong></td>
<td><strong>8,967.6</strong></td>
</tr>
</tbody>
</table>

### Energy resources consumed in 2018

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>Quantity</th>
<th>Expenses for energy resources, RUB million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>ths m³</td>
<td>3,885,441</td>
<td>14,781.2</td>
</tr>
<tr>
<td>Blast furnace gas</td>
<td>ths m³</td>
<td>13,408,799</td>
<td>6,660.3</td>
</tr>
<tr>
<td>Fuel Type</td>
<td>Unit</td>
<td>Quantity</td>
<td>Value</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------</td>
<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td>Coke gas</td>
<td>ths m³</td>
<td>1,868,632</td>
<td>3,625.3</td>
</tr>
<tr>
<td>Coal burnt at stations</td>
<td>tonnes</td>
<td>33,623</td>
<td>71.2</td>
</tr>
<tr>
<td>Diesel fuel</td>
<td>tonnes</td>
<td>24,372</td>
<td>941.5</td>
</tr>
<tr>
<td>Electric energy</td>
<td>ths kWh</td>
<td>7,638,379</td>
<td>15,226.2</td>
</tr>
<tr>
<td>Heat energy contained in steam</td>
<td>Gcal</td>
<td>5,265,598</td>
<td>3,971.3</td>
</tr>
<tr>
<td>Heat energy contained in hot water</td>
<td>Gcal</td>
<td>801,412</td>
<td>593.7</td>
</tr>
</tbody>
</table>
Corporate governance

Statement by the Board of Directors of PJSC MMK on compliance with corporate governance principles: MMK is committed to meeting high international and national standards of corporate governance. The Company’s strong governance, combined with its solid financial performance, makes it a reliable partner for investors.

The overall objective of MMK’s corporate governance is to increase the Company’s value while balancing the interests of all stakeholders.

The Company aims to achieve this objective by:
1. Protecting the rights and interests of all shareholders;
2. Ensuring transparency of information on the Company’s activities;
3. Establishing a governance structure to support the Company’s strategic management, as well as to oversee and ensure the accountability of management; and
4. Building trusted relations with all key stakeholders, including shareholders, suppliers, customers and employees.

MMK’s corporate governance guidelines and procedures are set forth in the Company’s Corporate Governance Code, which was approved by a decision of the Board of Directors of 21 September 2001 (posted on MMK’s website: http://mmk.ru/corporate_governance/internal_documents/code_of_corporate_governance/).

Interactions with MMK’s shareholders

The basic principles for building relationships with the Company’s shareholders and investors are the protection of shareholder and investor rights; the principle of equal treatment of all shareholders, including minority and foreign shareholders; and the principle of fair management. The Company aims to support activities to protect the environment while developing new technologies.

In order to increase the trust of the state and partners (counterparties) in the Company's activities and to improve the performance the Company's management, a Code of Business Ethics was developed and approved by the Board of Directors (last revision on 19 December 2017). The Code of Business Ethics and other internal documents approved by the Company that specify its fundamental business principles are posted on MMK’s website (http://eng.mmk.ru/corporate_governance/internal_documents/).

The Board of Directors is confident that this approach to shareholders instils confidence in the investment community and promotes the loyalty of shareholders.

The Company actively interacts with the investment community. During the reporting year, two non-deal roadshows were organised with the participation of the Company's CEO in the United States and the United Kingdom. These trips were well received by participants. During the year, a group of investors also visited PJSC MMK.

Compliance with best practices in corporate governance

The Company generally adheres to the principles of corporate governance recommended by the Bank of Russia on 21 March 2014.

Since 2003, MMK has commissioned annual independent assessments of the quality of its corporate governance. In 2018, the Russian Institute of Directors (RID) confirmed MMK’s national corporate governance score at 7++ (developed corporate governance practice) according to the National Corporate Governance Rating scale. This means that "the Company meets the requirements of Russian legislation related to corporate governance and follows a significant number of recommendations found in the Russian Code of Corporate Governance. There is a rather low risk that shareholders will sell their shares for reasons related to the Company’s corporate governance."
Following the recommendations of the Corporate Governance Code, as well as best corporate governance practices, the Company uses the following mechanisms and tools in particular (in accordance with its Charter and bylaws):

- the deadline for shareholders to submit proposals for the agenda of the Annual General Shareholders’ Meeting was extended to 60 days after the end of the financial year;
- established rules for responding to shareholders’ questions during the meeting;
- the deadline for providing information on the list of persons entitled to participate in the General Shareholders’ Meeting has been specified;
- an additional means of communicating with shareholders has also been introduced, i.e. via the e-mail address shareholder@mmk.ru (used in practice);
- it is possible to create an electronic voting system that enables every shareholder to freely exercise their right to vote in the simplest and most convenient way for them;
- the list of issues that are to be decided by a majority vote of all elected members of the Board of Directors and the list of issues decided by the Board of Directors through in-person voting have been expanded;
- the Company has formed a collegial executive body, the Management Board, the main functions of which are reviewing MMK Group’s financial and economic plan (budget), forecasting the financial and economic indicators for the Group, approval of representatives in MMK Group’s companies and approval of directives to the representatives to take decisions at General Shareholders’ Meetings (participants) and meetings of the Board of Directors;
- to improve manageability in the companies of MMK Group, the Group has representatives in Group companies. The representatives perform their activities on the basis of the Regulations on the Representatives approved by the Company’s CEO and in accordance with the directives approved by PJSC MMK’s Management Board;
- the Board of Directors takes decisions not only on those transactions that are provided for by Russian laws but also on transactions with a value of more than 10% of the book value of the Company’s assets, as well as on transactions on the disposal of real estate regardless of the transaction value;
- in accordance with the recommendations of the Corporate Governance Code and the listing requirements of the Moscow Exchange, the Internal Audit Department evaluates the Company’s corporate governance.

**Assessment of the activities of the Board of Directors**

Since 2008, the Board of Directors has been assessing, on an annual basis, the state of corporate governance in the Company, as well as its own activities and those of its committees. The results of this assessment are reflected in the Company's annual report. When making its assessment, each member of the Board of Directors fills out a questionnaire in which they state whether they feel that the principles of corporate governance are being sufficiently complied with in the Company. They can also write their opinions about the strengths and weaknesses of the Company’s approach to corporate governance as a whole and of the work of the Board of Directors, its committees and individual directors. The results of the assessment are passed on to the Nominations and Remuneration Committee and published in the annual report.

As a result of the self-assessment on the Board's work in 2018, members of the Board of Directors noted the high quality of the organisation of the work of the Board and its committees, the positive team and personal characteristics of Board members (leadership on the part of the Chairman, discipline, cohesion of the members of the Board of Directors, their embodiment of the shared goal of building an industry leader, mutual respect, excellent qualifications and rich experience in various areas of business). The Company's leadership in
the field of corporate social responsibility and the need for more open external communication in this area were noted.

At the same time, the Company as a whole needs to pay attention to the further development of innovation, leadership in setting corporate standards and the practice of open discussions on the most important issues facing the Board of Directors and its committees.

The survey showed the need to strengthen the Board of Directors in the form of new competencies that meet current challenges (including in the field of information technology).

In general, the members of the Board gave the work of each of the other members of a positive (satisfactory) personal assessment.

In 2017, the Board decided to arrange for the first time an assessment of its performance by a qualified independent external consultant. The report on the performance assessment of the Board of Directors was reviewed by the Board at an in-person meeting in 2018, and information on the results of the assessment was included in MMK's Annual Report on its 2017 results.

Taking into account the recommendations formulated in the report of the external consultant who assessed the activities of the Board of Directors, the recommendations of the Russian Institute of Directors, which monitors MMK's corporate governance practices, and taking into account changes in the laws of the Russian Federation, the Board of Directors adopted a Programme for the Improvement of PJSC MMK's Corporate Governance until 2020:

http://www.mmk.ru/upload/iblock/0fa/Program%20KU.pdf

In accordance with the Programme in 2018: regular working sessions were organised with the participation of independent directors to discuss the portfolio of strategic initiatives and the KPI system; at the initiative of the Board of Directors, MMK's Audit Commission was abolished by decision of the Extraordinary General Shareholders' Meeting of 25 February 2019; a practice was introduced whereby the Nominations and Remuneration Committee conducts a preliminary discussion of the requirements for candidates for the Board of Directors and the criteria for their evaluation based on the Company's current challenges.

Online service for shareholders

In accordance with a decision of MMK's management in 2017, the Company's shareholders were granted free access to the Shareholder Dashboard STATUS Online information system. A link to the service is posted on the MMK's public website at:

http://www.mmk.ru/contacts/corporate_secretary/

The Shareholder Dashboard is a secure, multifunctional information service that shareholders can use for remote service and to take part in the Company's corporate actions (e-voting at General Shareholders' Meetings).

In 2018, e-voting at MMK's General Shareholders' Meetings was made possible for the first time through the Shareholder Dashboard.

The Shareholder Dashboard has the following sections:

- Portfolio: information on securities, including the quantity and value thereof, as well as portfolio structure and personal information.*
- Transaction log: a complete list of transactions conducted through a shareholder's personal accounts.*
- General Shareholders' Meetings: electronic registration and voting at General Shareholders' Meetings.
- Dividends: information on accrued dividends.*
- News and events: a news feed about MMK's corporate actions and news from the registrar.
- Inquiries: consultations with the registrar's experts.
- Documents: document templates for communication with the registrar.
- Questions and answers: answers to typical questions and a description of standard procedures.
- Appointments: make an appointment in the customer service area at a convenient time for the shareholder.*
- Notifications panel: all of the service's events on one page.
* These functions are not available for shareholders whose securities are recorded in the accounts of a nominal holder (in the depositary).

**Awards and achievements**

As part of the 13th National Director of the Year Award awards, several representatives of MMK were honoured, including Victor Rashnikov in the category of the 25 Best Board Chairmen, Kirill Liovin in the category of the 50 Best Independent Directors, and Sergey Krivoshchekov in the category of the 25 Best Corporate Governance Directors and Corporate Secretaries.

**A brief description of the corporate governance model and practices**

Governance structure of MMK:

* MMK’s Audit Commission was abolished by decision of the Extraordinary General Shareholders’ meeting of 25 February 2019.
General Shareholders’ Meeting.

According to PJSC MMK’s Charter, the General Shareholders’ Meeting is the Company’s supreme governing body.

http://eng.mmk.ru/corporate_governance/internal_documents/group_documents/

The procedure for convening and holding General Shareholders’ Meetings is governed by the Regulations on the General Shareholders’ Meeting

(http://eng.mmk.ru/corporate_governance/internal_documents/regulations_approved/).

In 2018, four General Shareholders’ Meetings were held:

On 1 June 2018, the Annual General Shareholders’ Meeting considered the following items:

2. Distribution of profit, including payment (declaration) of dividends for the results of FY 2017.
3. Election of members of the MMK Board of Directors.
4. Election of members of the MMK Audit Commission.
5. Approval of the MMK auditor.
6. Approval of the amount of remuneration and compensation paid to the members of the MMK Board of Directors.
7. Approval of the amount of remuneration and compensation paid to the members of the MMK Audit Commission.

The quorum at the meeting was 90.60% of the total number of votes of the Company’s outstanding ordinary shares.

On 13 June 2018, an Extraordinary General Shareholders’ Meeting was held with the following agenda:

1. Payment of dividends on outstanding shares based on MMK’s results for Q1 2018.

   The quorum at the meeting was 90.72% of the total number of votes of the Company’s outstanding ordinary shares.

On 28 September 2018, an Extraordinary General Shareholders’ Meeting was held with the following agenda:

1. Payment of dividends on outstanding shares based on MMK’s results for H1 2018.

   The quorum at the meeting was 91.29% of the total number of votes of the Company’s outstanding ordinary shares.

On 7 December 2018, an Extraordinary General Shareholders’ Meeting was held with the following agenda:

1. Payment of dividends on outstanding shares based on MMK’s results for the first nine months of FY 2018.

   The quorum at the meeting was 90.95% of the total number of votes of the Company’s outstanding ordinary shares.
The Board of Directors is in charge of managing the Company’s activities (except for matters for which the General Shareholders’ Meeting has responsibility), and it is also responsible for overseeing the implementation of resolutions by the Company’s executive bodies adopted by the Board of Directors or the General Shareholders’ Meeting. The Board of Directors consists of 10 people. The election of members of the Board of Directors is carried out by cumulative voting. Meetings of the Board of Directors are convened by the Chairman of the Board of Directors and held both in person and in the form of absentee voting. The operation of the Board of Directors is determined by the Regulations on the Board of Directors (http://eng.mmk.ru/corporate_governance/internal_documents/regulations_approved/).

The Board of Directors includes three committees: the Audit Committee, the Nominations and Remuneration Committee, and the Strategic Planning Committee. The operation of the committees is governed by the Regulations on the Committees (http://www.mmk.ru/corporate_governance/internal_documents/group_documents/).

The composition of the Board of Directors

Independent directors. The Board of Directors is accountable to the General Shareholders’ Meeting. Independent directors are elected annually to the Board of Directors. During the Annual General Shareholders' Meeting held on 1 June 2018, three independent directors were elected to the Board of Directors—Ruben Aganbegyan, Valeriy Martsinovich and Morgan Ralph Tavakolian—who meet all the independence criteria set out in the Code of Corporate Governance.

On 1 June 2018, the Board of Directors, guided by Subparagraph 2 of Paragraph 2.18 of Appendix 2 and by Appendix 4 to the Listing Rules of JSC Moscow Exchange, named Kirill
Liovin to the Board of Directors as an independent director. Thus, the Board of Directors has four independent directors.

The independent directors play an important role in the Company. Thanks to their qualifications, experience and constructive criticism, the Board of Directors, when considering agenda items, takes more informed decisions. The independent directors played a major role in the improvement of the Strategic Development Plan for MMK Group for the period until 2025 and in the assessment of its performance, in the formation of KPIs and assessments of the activities of executive bodies, in the assessment of the efficiency of the risk management and internal control system, as well as in the assessment of the Company's performance in the field of industrial and environmental safety.

**Gender composition of the Board of Directors**

![Gender Composition](image)

**Age of the members of Board of Directors**

- From 41 to 50 years of age - 5
- Above 50 years of age - 5

**The term of service of the Board of Directors**

- More than 20 years - 1
- From 10 to 20 years - 1
- From 5 to 9 years - 6
- Less than 5 years - 2

**Information about changes in membership of the Board of Directors in 2018**

There were no changes in the composition of the Board of Directors in 2018.
Functions of the Chairman of the Company’s Board of Directors

Pursuant to Article 7 of the Regulation on the Board of Directors of PJSC MMK, the following functions of the Chairman of the Company’s Board of Directors were approved by General Shareholders’ Meeting Decision No 46 of 26 May 2017.

http://www.mmk.ru/upload/iblock/3c7/%D0%9F%D0%BE%D0%BB%D0%BE%D0%B6%D0%B5%D0%BD%D0%B8%D1%8F%20%D0%BE%20%D0%A1%D0%94%20%D0%B4%D0%BB%D1%8F%20%D0%93%D0%9E%D0%A1%D0%90%202017.pdf

Information on the activities of the Board of Directors for 2018.

**Number of meetings of the Board of Directors (in person and through absentee voting):**

For the period from 1 January 2018 through 31 December 2018, 15 meetings of the Board of Directors were held. Seven of the meetings were held in person and eight decisions adopted through absentee voting.

**Personal participation of members of the Board of Directors in the work of the Board:**

<table>
<thead>
<tr>
<th>Full name</th>
<th>Board of Directors Meetings</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Participation in meetings</td>
<td>Participation in absentee voting</td>
<td>Total meetings/absentee voting</td>
<td></td>
</tr>
<tr>
<td>Ruben Aganbegyan</td>
<td>6</td>
<td>8</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Kirill Liovin</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Nikolai Lyadov</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Valeriy Martsinovich</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Morgan Ralph Tavakolian</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Victor Rashnikov</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Olga Rashnikova</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Zumrudy Rustamova</td>
<td>6</td>
<td>8</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Sergey Ushakov**</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Pavel Shilyaev</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

**Number of issues considered by the Board of Directors:**

During the period from 1 January 2018 through 31 December 2018, 86 issues were considered.

**Committees of the Board of Directors**

To improve the efficiency of the Board of Directors’ work and their resolutions, MMK has set up the following committees:

- Audit Committee;
- Nominations and Remuneration Committee;
- Strategic Planning Committee.

These committees submit performance reports to the Board of Directors not later than 30 business days before the date of the Annual General Shareholders’ Meeting.
<table>
<thead>
<tr>
<th>Committee Functions</th>
<th>Audit Committee</th>
<th>Nominations and Remuneration Committee</th>
<th>Strategic Planning Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Selection of the independent auditor.</td>
<td>- Approval of long-term plans, programmes, policies and key guidelines of the Company and of the Group as a whole, amendments to such documents and monitoring of implementation thereof with regard to: human resources policy and management structure, motivation and wage policy, promotion of career growth and formation of talent pools, corporate governance.</td>
<td>- Identifying priority areas of activity and the development strategy of the Company and of the Group as a whole. Approval of long-term plans, programmes, policies and guidelines for the Company and Group companies, introduction of amendments to such documents, monitoring their implementation in the areas of: investment, innovation and integration activities; determination of prioritised areas of activity regarding sales and procurement, production activities, placement and borrowing of funds, property management, social policy, management of Group companies, investor relations, etc.</td>
<td></td>
</tr>
<tr>
<td>- Supervision of the Company’s financial and business activities.</td>
<td>- Review of proposals from shareholders on the nomination of candidates to the Board of Directors, the Audit Commission and the position of the Company’s General Director.</td>
<td>- Approval of the Company’s financial and business operations plan (budget) for the financial year and supervision of its implementation.</td>
<td></td>
</tr>
<tr>
<td>- Interaction with the Company’s auditor.</td>
<td>- Making recommendations to the Board regarding remuneration and compensation for members of the Board of Directors (including executive directors of the Board) and members of the Company’s Audit Commission.</td>
<td>- Calling of Annual and Extraordinary General Shareholders’ Meetings.</td>
<td></td>
</tr>
<tr>
<td>- Oversight of the reliability and efficiency of the risk management and internal control systems.</td>
<td>- Approval of the Company’s corporate key performance indicators.</td>
<td>- Preparation of recommendations on profit distribution for the General Shareholders’ Meeting.</td>
<td></td>
</tr>
<tr>
<td>- Independent supervision of the financial reporting internal control system and evaluation of the performance of the Company’s financial reporting internal control system.</td>
<td>- Preliminary review of candidates for positions of members of the Company’s Board of Directors, the Audit Committee.</td>
<td>- Supervision of the implementation of resolutions of the Board of Directors by the</td>
<td></td>
</tr>
<tr>
<td>- Making recommendations to the Board of Directors for decision-making on risk management, implementation of oversight of the functioning of the Company’s risk management system and analysis of the effectiveness of risk management.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Reviewing and making recommendations to the Board of Directors on the approval of long-term plans, programmes, policies and guidelines, introduction of amendments to such documents, and performance oversight</td>
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</tbody>
</table>
Regarding industrial and occupational safety and environmental protection for the Company and Group companies.

- Other functions.

Commission and the Company’s CEO and presentation (formulation) of relevant recommendations to the Board of Directors.

- Approval of the Company’s organisational structure.

- Other functions.

Company’s executive body.

- Adoption of the Report of the Board of Directors on the results of priority activities.

- Other functions.

<table>
<thead>
<tr>
<th>Committee members</th>
<th>2018</th>
<th>2018</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>Ruben Aganbegyan (independent director)</td>
<td>Valeriy Martsinovich (independent director)</td>
<td>Victor Rashnikov</td>
</tr>
<tr>
<td>Committee Members</td>
<td>Kirill Liovin (independent director); Valeriy Martsinovich (independent director); Ralph Morgan Tavakolian (independent director)</td>
<td>Ralph Morgan Tavakolian (independent director); Zumrud Rustamova (non-executive director)</td>
<td>Ruben Aganbegyan (independent director); Kirill Liovin (independent director); Nikolai Lyadov (from 1 December 2018, non-executive director); Olga Rashnikova (non-executive director); Sergey Ushakov; Pavel Shilyaev</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total meetings in 2018</th>
<th>12</th>
<th>9</th>
<th>7</th>
</tr>
</thead>
</table>

| Key issues | - Report on the results of the audit by JSC PricewaterhouseCoopers Audit of MMK’s consolidated financial statements (IFRS-compliant).

The conclusion of the auditor of JSC PricewaterhouseCoopers Audit on its audit of MMK’s financial statements (RAS-compliant).

- Determination of remuneration for the services of MMK’s |
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>- Consideration of proposals submitted by shareholders regarding candidates for the Board of Directors and Audit Commission.</td>
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</tr>
<tr>
<td></td>
<td>- Recommendations to the Annual General Shareholders’ Meeting regarding the amount of remuneration and compensation payable to the members of the Board of Directors and the Audit Commission.</td>
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<tr>
<td></td>
<td>- The inclusion of candidates on the list of</td>
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<tr>
<td></td>
<td>- The results of MMK and MMK Group’s financial and business operations.</td>
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<tr>
<td></td>
<td>- Approval of MMK and MMK Group’s financial and business plan (budget) for 2019.</td>
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<tr>
<td></td>
<td>Implementation and approval of guidelines for sales, procurement policy, investor relations, etc.</td>
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<tr>
<td></td>
<td>- Calling and holding the Annual General Shareholders’ Meeting.</td>
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<tr>
<td>Recommendations to MMK's Annual General Shareholders' Meeting on the candidacy of the MMK auditor.</td>
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<tr>
<td>- The conclusion of MMK's Audit Commission on the results of verification of the reliability of data contained in MMK's annual report and financial reporting.</td>
<td></td>
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<tr>
<td>- The system of internal control and internal audit at MMK and the companies that make up MMK Group.</td>
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<tr>
<td>- The priority areas of MMK's activities—safe production: implementation of the strategic initiative Zero Tolerance for Safety Violations.</td>
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<tr>
<td>- Implementation of MMK's Environmental Programme and MMK Group's Environmental Policy. Implementation of the Clean City strategic initiative.</td>
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<tr>
<td>- Efficient performance of the economic security system within MMK and MMK Group.</td>
<td></td>
<td></td>
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<tr>
<td>- MMK and MMK Group's risk management system.</td>
<td></td>
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<tr>
<td>candidates for voting for MMK's Board of Directors.</td>
<td></td>
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<tr>
<td>- Approval of the Programme for the Improvement of PJSC MMK's Corporate Governance until 2020.</td>
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<tr>
<td>- Implementation of the main aspect of MMK and MMK Group's Human Resources Policy in 2017 and on approval of the main aspects of MMK and MMK Group's Human Resources Policy for 2018.</td>
<td></td>
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<tr>
<td>- Conducting an independent assessment and the results of the assessment of the performance of the Board of Directors.</td>
<td></td>
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</tr>
<tr>
<td>- Implementation of the strategic initiatives Supplier No 1 for the Most Demanding Customers in the Automotive Industry in the Domestic Market, Deliveries on Time, Material Flows, Big Data, Procurement: Just-in-Time Deliveries of Goods and Materials, Solving the Problem of a One-Industry Town, Improving the Health of Employees and Focus on Key Business.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>- Approval of the Report of the Board of Directors on the results of priority activities.</td>
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</tbody>
</table>

**Regulations:**
http://eng.mmk.ru/corporate_governance/internal_documents/group_documents/
<table>
<thead>
<tr>
<th>Full name</th>
<th>Meetings of the Audit Committee</th>
<th>Meetings of the Nominations and Remuneration Committee</th>
<th>Meetings of the Strategic Planning Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Participation in meetings</td>
<td>Total meetings</td>
<td>Participation in meetings</td>
</tr>
<tr>
<td><strong>Victor Rashnikov</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ruben Aganbegyan</strong></td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Kirill Liovin</strong>*</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nikolai Lyadov</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Valeriy Martsinovich</strong></td>
<td>7</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Morgan Ralph Tavakolian</strong></td>
<td>12</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Olga Rashnikova</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Zumrud Rustamova</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Sergey Ushakov</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pavel Shilyaev</strong></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* Kirill Liovin became a member of the Strategic Planning Committee on 1 June 2018.
** Valeriy Martsinovich became a member of the Audit Committee on 1 June 2018.

INFORMATION ABOUT THE MEMBERS OF THE BOARD OF DIRECTORS (BACKGROUND PROFILE AND SHAREHOLDINGS WITHIN THE FINANCIAL YEAR) (as of 1 January 2018)

**Victor Rashnikov** (born in 1948) – Chairman of the PJSC MMK Board of Directors; Russian citizen; member of the Board of Directors since 2 April 1993; President of the Metallurg Ice Hockey Club since 1999; since 2005, member of the Board of Directors of the World Steel Association; since 2008, member of the Board of Directors of the LLC Continental Hockey League; since 2011, member of the Supervisory Board of the Russkaya Stal metallurgical association (known as the Russian Steel Consortium until 16 December 2016); member of the Management Board of the Russian Union of Industrialists and Entrepreneurs national public organisation and of the Russian Union of Industrialists and Entrepreneurs national association of employers; President of the Union of Industrialists and Entrepreneurs Chelyabinsk regional public organisation and of the Union of Industrialists and Entrepreneurs Chelyabinsk regional association of employers.

Education: Graduate of the Magnitogorsk Institute of Mining and Metallurgy in Metallurgical Engineering (1974), graduate of the Magnitogorsk Academy of Mining and Metallurgy in Management (1993), PhD, Professor.

Holds no shares of PJSC MMK.

**Zumrud Rustamova** (born in 1970) – Deputy General Director of JSC Polymetal UK; Russian citizen; member of the PJSC MMK Board of Directors since 21 April 2006; since 2009, Deputy General Director (part-time) of JSC Polymetal; since 2011, member of the Board of Directors of PJSC PIK Group; since 2012, Deputy General Director (part-time) of ICT Group; since 2007, member of the Board of Trustees of the Ladya Foundation for Support of Social, Innovative and Sport Projects (formerly known as the Foundation for Support of Chess Creativity (non-profit organisation).
Ruben Aganbegyan (born in 1972) – since 2018, Advisor to the General Director of LLC Vnesheconombank Investment Company (VEB Capital); Russian citizen; member of the PJSC MMK Board of Directors since 30 May 2014; since 2013, member of the Board of Directors of PJSC Rostelecom; since 2016, member of the Supervisory Board of the Russian Foundation for Technological Development; since 2016, member of the Board of the Foundation for the Development of the Polytechnic Museum.


Holds no shares of PJSC MMK.

Kirill Liovin (born in 1968) – member and Deputy Chairman of the Management Board of OJSC Rosselkhozbank; Russian citizen; member of the PJSC MMK Board of Directors since 30 May 2014; since 2014, member of the Board of Directors of OJSC Belgzaprombank; since 2017, member of the Board of Directors of LLC IC RSHB Insurance and Chairman of the Board of Directors of LLC RSHB Asset Management.

Education: Graduate of the Moscow Aviation Institute in Economics and Management of Scientific Research and Design.

Recognised as an independent member of the Board of Directors of PJSC MMK (Board of Directors decision of 1 June 2018).

Holds no shares of PJSC MMK.

Valeriy Martsinovich (born in 1973) – since 2014, Strategic Director at Hay Group LLC for rapidly emerging markets in the European cluster; citizen of Poland; member of the PJSC MMK Board of Directors since 30 May 2014.

Education: Graduate of Gdańsk University (Poland), Faculty of Economics, Foreign Trade (1991-1996), Master’s Degree in Economics.

Post-graduate studies in Investment Banking at London Guildhall University (1996-1997).

Meets the criteria of independence specified in PJSC MMK’s internal documents.

Holds no shares of PJSC MMK.

Morgan Ralph Tavakolian (born in 1968) – Department Director of a subsidiary of Baring Vostok Capital Partners Group Limited; citizen of the USA; member of the PJSC MMK Board of Directors since 29 May 2015; since 2014, non-executive director at Tigers Realm Coal Ltd; since 2017, member of the Board of Directors of the U.S.-Russia Business Council.

Education: Graduate of Yale University, Bachelor of Arts in Political Science and International Relations; St Antony’s College, Oxford University, Master’s in Russian and East European Economics and Law.

Meets the criteria of independence specified in PJSC MMK’s internal documents.

Holds no shares of PJSC MMK.

Nikolai Lyadov (born in 1956) – until 30 November 2018, MMK’s Deputy General Director for Sales, non-executive director since 1 December 2018; Russian citizen; member of the PJSC MMK Board of Directors since 20 May 2011.

Education: Graduate of the Nosov Magnitogorsk Institute of Mining and Metallurgy, specialising in Transport Organisation and Administration.

Holds no shares of PJSC MMK.
Olga Rashnikova (born in 1977) – Non-executive director; Russian citizenship; member of the PJSC MMK Board of Directors since 25 May 2012; member of the Board of Directors of MEK LLC and LLC Energopark from 25 April 2018. Education: Graduate of Franklin College, Lugano, Switzerland, in Economics and Finance (2000).

MBA (executive class) from the State Management University, Moscow (2009).

Holds no shares of PJSC MMK.

Sergey Ushakov (born in 1969) – since 1 December 2018, MMK’s Deputy General Director for Sales; Russian citizenship; member of the PJSC MMK Board of Directors since 26 May 2017; MMK’s Deputy General Director for Production from 2017 to 30 November 2018; member of the Management Board of PJSC MMK since 2015. Education: Nosov Magnitogorsk State Technical University, Metallurgy (2017).

Holds 166,900 shares (0.0015%) of PJSC MMK.

Pavel Shilyaev (born in 1970) – General Director of PJSC MMK; Russian citizen; member of the PJSC MMK Board of Directors since 30 May 2014; since 2012, member of the Management Board of PJSC MMK; since 2014, Chairman of the Management Board of PJSC MMK; since 2017, member of the Board of Directors of JSC Credit Ural Bank; since 24 September 2018, member of the Management Board of the Central Clinical Medical Centre. Education: Chelyabinsk State Technical University, degree in Electric Drive and Industrial Automation, 1992.

In 2006, he completed courses in performance management at the Stockholm School of Economics in Russia (St Petersburg). Candidate of Engineering Sciences (2010).

Holds 335,800 shares (0.0030%) of PJSC MMK.

Report of the Board of Directors on the Results of Priority Activities for 2018

In 2018, the MMK Board of Directors held 15 meetings and considered 83 issues. The most important issues considered by the Board of Directors were:

In the field of strategic management:

- implementation of strategic initiatives in priority areas identified and approved in the Strategic Development Plan of MMK Group for the period until 2025;
- adjustments to the MMK Group Investment Programme for the period until 2025 in the framework of the Strategic Development Plan of MMK Group for the period until 2025;
- the results of the implementation of key performance indicators in 2017 and the approval of corporate key performance indicators for 2018;
- forecast of the results of the implementation of key performance indicators in 2018.

In the sphere of corporate governance:

- preparations for the PJSC MMK Annual General Shareholders' Meeting and the PJSC MMK Extraordinary General Shareholders' Meetings;
- organisation of the activities of the Board of Directors of PJSC MMK;
- implementation of PJSC MMK's Dividend Policy: recommendations of the Board of Directors of PJSC MMK to Extraordinary General Shareholders' Meetings on the amount and payment procedure for dividends on ordinary shares of PJSC MMK for the results of Q1, H1 and the first nine months of 2018;
- the results of the performance assessment of the Board of Directors of PJSC MMK;
• recognition of members of the Board of Directors of PJSC MMK as independent;
• approval of the Programme for the Improvement of PJSC MMK’s Corporate Governance until 2020;
• on the formation of a collegial executive body: the MMK Management Board;
• the internal control system (including internal control over financial reporting) within MMK and MMK Group in 2017, an assessment of its effectiveness;
• the performance of risk management at MMK and MMK Group in 2017.
• approval of new editions of MMK’s internal documents, including:
  ✓ Internal Audit Policy of PJSC MMK and the Companies of PJSC MMK Group;
  ✓ Policy on Internal Oversight of PJSC MMK and the Companies of PJSC MMK Group;
  ✓ Policy on Risk Management of PJSC MMK and the Companies of PJSC MMK Group;
  ✓ Code of Business Ethics of PJSC MMK.

In the field of budgeting and financing activities:
• analysis of the results of the financial and economic activity of MMK and MMK Group in terms of key performance indicators for the period compared to MMK’s major competitors and approval of the financial plan (budget) for MMK and MMK Group for FY 2019;
• MMK’s activities for 2018;
• decision-making on transactions, including transactions made in the ordinary course of business within MMK, the value of which is more than 10% of MMK’s book value as determined by its financial statements as of the last reporting date, as well as the approval of transactions related to the disposal of immovable property regardless of the value of the transaction;
• related-party transactions, in particular:
  ✓ consideration of requests by a member of the collegial executive body (MMK’s Management Board) in accordance with Article 83(1) of the Federal Law on Joint Stock Companies;
  ✓ consent to the conclusion of related-party transactions;
  ✓ approval of the “Report on PJSC MMK’s related-party transactions concluded in the 2017 reporting year”.

In addition, the Board of Directors considered issues related to the implementation and approval of its main areas of business:
• MMK and MMK Group’s Procurement Policy in 2017 and approval of the main aspects of MMK and MMK Group’s Procurement Policy for 2018;
• MMK and MMK Group’s Human Resources Policy in 2017 and approval of the main aspects of MMK and MMK Group’s Human Resources Policy for 2018;
• MMK and MMK Group’s Sales Policy in 2018 and the approval of the main aspects of MMK and MMK Group’s Sales Policy for 2019;
• investor relations in 2017 and approval of the main aspects of investor relations for 2018;
• the work of MMK and MMK Group’s economic security system in 2017;
• MMK Group's borrowing and placement of funds in 2017 and approval of the main aspects of MMK Group's borrowing and placement of funds for 2018;

• implementation of MMK's Environmental Programme in 2018 and MMK Group's Environmental Policy in 2018.

In accordance with the Federal Law on Joint-Stock Companies, the Board of Directors performs general management of the Company, ensures the rights of shareholders, determines the Company’s development strategy, and takes decisions on the Company’s financial and business issues and other matters stipulated by law and the Company’s Charter.

On 28 September 2018, the Board of Directors approved the Programme for the Improvement of PJSC MMK’s Corporate Governance until 2020. All measures that had a deadline in 2018 were implemented.

In 2018, the Russian Institute of Directors (RID) confirmed MMK’s national corporate governance score at 7++ (developed corporate governance practice) according to the National Corporate Governance Rating scale.

All the activities of the Board of Directors and the Company in the reporting year were transparent to shareholders and other interested parties, and information about said activities has been disclosed appropriately and in full.

The Company’s executive bodies are the Management Board and the sole executive body, i.e. the General Director.

The activities of the executive bodies are governed by the Regulation on the Collegial Executive Body, i.e. the Management Board, and the Regulations on the Sole Executive Body, i.e. the General Director
(http://eng.mmk.ru/corporate_governance/internal_documents/regulations_approved/).

The executive bodies regularly report at meetings of the Board of Directors in accordance with the approved plan of operation of the Board of Directors.

The competence of the Company's management bodies is set forth in PJSC MMK’s Charter.

Information on the Person Performing the Functions of the Company's Sole Executive Body, the Members of the Company’s Management Board, and the Company's Corporate Secretary.

Pavel Shilyaev (born in 1970) – General Director of PJSC MMK; Russian citizen; member of the PJSC MMK Board of Directors since 30 May 2014; since 2012, member of the Management Board of PJSC MMK; since 2014, Chairman of the Management Board of PJSC MMK; since 2017, member of the Board of Directors of JSC Credit Ural Bank; since 24 September 2018, member of the Management Board of the Central Clinical Medical Centre.

Education: Chelyabinsk State Technical University, degree in Electric Drive and Industrial Automation, 1992.

In 2006, he completed courses in performance management at the Stockholm School of Economics in Russia (St Petersburg).

Candidate of Engineering Sciences (2010).

Holds 335,800 shares (0.0030%) of PJSC MMK.

Information on MMK’s Management Board

The collegial executive body, the Management Board of the Company, directs the Company’s day-to-day activities in accordance with its remit as specified in MMK's Charter and the Regulations approved by the General Shareholders’ Meeting.

In 2018, the Management Board held 32 meetings, which reviewed the following issues:
• Analysis of the results of MMK Group’s financial and business activities.
• Key figures related to MMK Group’s financial and business operations plan (budget).
• Performance reports by the companies of MMK Group on their production, financial and economic activities.
• Business processes within MMK Group by areas of activity.
• The implementation of programmes of measures for strategic initiatives.
• Approval of the Company’s representatives and instructions for the Company’s representatives to the companies of MMK Group.

<table>
<thead>
<tr>
<th>The Management Board of MMK (as of 31 December 2018)*</th>
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<tbody>
<tr>
<td><strong>Composition of the Management Board:</strong> 15 people</td>
</tr>
<tr>
<td><strong>Chairman</strong></td>
</tr>
<tr>
<td>Pavel Shilyaev (born in 1970), MMK’s General Director, member of the Management Board since 25 May 2012.</td>
</tr>
<tr>
<td>In 1992, he graduated from Chelyabinsk State Technical University with a degree in Electric Drive and Industrial Automation; in 2006, he completed courses in performance management at the Stockholm School of Economics in Russia (St. Petersburg).</td>
</tr>
<tr>
<td>Holds 335,800 shares (0.0030%) of PJSC MMK.</td>
</tr>
<tr>
<td><strong>Members of the Management Board</strong></td>
</tr>
<tr>
<td>Andrey Yeryomin (born in 1972) – Director for Economics; member of the Management Board since 25 May 2012.</td>
</tr>
<tr>
<td>In 1995, he graduated from the State Academy of Management with a degree in Economics and Management in the Steelmaking Industry, and in 2007, he graduated from the Academy of National Economy under the Government of the Russian Federation, where he received a Euromanagement MBA.</td>
</tr>
<tr>
<td>Holds 114,700 shares (0.0010%) of PJSC MMK.</td>
</tr>
<tr>
<td>Oleg Kiykov (born in 1961) – Director for Human Resources; member of the Management Board since 25 May 2012.</td>
</tr>
<tr>
<td>In 1985, he graduated from the Kuibyshev Aviation Institute with a degree in Aircraft Engineering.</td>
</tr>
<tr>
<td>Holds 52,000 shares (0.0005%) of PJSC MMK.</td>
</tr>
<tr>
<td>Pavel Kravchenko (born in 1975) – Head of Logistics; member of the Management Board since 2 September 2016.</td>
</tr>
<tr>
<td>In 2001, he graduated from the Nosov Magnitogorsk State Technical University with a degree in Plastic Metalworking.</td>
</tr>
<tr>
<td>Holds no shares of PJSC MMK.</td>
</tr>
<tr>
<td>Sergey Krivoshchekov (born in 1961) – Director for Corporate Matters and Social Programmes; member of the Management Board member since 25 May 2012.</td>
</tr>
<tr>
<td>In 1983, he graduated from the Magnitogorsk Institute of Mining and Metallurgy with a degree in Plastic Metalworking. PhD in Economics.</td>
</tr>
<tr>
<td>Holds no shares of PJSC MMK.</td>
</tr>
</tbody>
</table>
In 2001, he graduated from the Nosov Magnitogorsk State Technical University with a degree in Law.

Holds no shares of PJSC MMK.

Sergey Nenashev (born in 1979) – Commercial Director; member of the Management Board since 13 February 2015.


Holds no shares of PJSC MMK.


In 2005, she graduated with honours from the Peoples' Friendship University of Russia with a degree in International Economics; in 2013, she earned an auditor's qualification certificate; in 2010, she joined the Association of Chartered Certified Accountants (ACCA) of Great Britain.

Holds no shares of PJSC MMK.

Vladimir Ruga (born in 1970) – Deputy General Director for External Communications; member of the Management Board since 25 May 2012.

In 1993, he graduated from Moscow State Pedagogical University with a degree in Teaching History and Social Science. PhD in History.

Holds no shares of PJSC MMK.


In 1987, he graduated from the Sverdlovsk Red Banner of Labour Law Institute with a degree in law.

In 2010, he completed professional training in State and Municipal Management at the Academy of Management of the Russian Ministry of Internal Affairs.

Holds no shares of PJSC MMK.

Sergey Ushakov (born in 1969) – Deputy General Director for Sales; member of the Management Board since 13 February 2015.

In 2017, he graduated from the Nosov Magnitogorsk State Technical University with a degree in Metallurgy.

Holds 166,900 shares (0.0015%) of PJSC MMK.

Vadim Feoktistov (born in 1969) – Chief Information Technology Specialist; member of the Management Board since 1 August 2018.

In 1992, he graduated from the Magnitogorsk Institute of Mining and Metallurgy with a degree in Automation of Metallurgical Production; in 2003, he completed an advanced practical training course in Management at the Magnitogorsk Higher School of Business; and in 2008, he completed an MBA in Information Management at the Russian Presidential Academy of National Economy and Public Administration. Holds no shares of PJSC MMK.

Sergey Shepilov (born in 1971) – Chief Legal Officer, member of Management Board since 25 May 2012.

In 1994, he graduated from the Nosov Magnitogorsk Mining and Metallurgy Institute with a degree in Electric Drive and Industrial Automation and Technological Complexes. In 1998, he graduated from the Urals Public Administration Academy with a degree in Law. He also
graduated from the Ardmore Language School (2000). Owns 63,900 shares (0.0006%) of MMK PJSC.

Oleg Shiryaev (born in 1965) – Deputy General Director for Production; member of the Management Board since 19 December 2018.

In 1987, he graduated from the Nosov Magnitogorsk Institute of Mining and Metallurgy with a degree in Plastic Metalworking.

Holds no shares of PJSC MMK.


In 1998, he graduated from the Nosov Magnitogorsk State Technical University with a degree in Metallurgical Machinery and Equipment. In 2012, he graduated from the Russian Presidential Academy of National Economy and Public Administration with a degree in Technological Management.

Holds 113,100 shares (0.001%) of PJSC MMK.

* Vadim Feoktistov and Oleg Shiryaev became members of the Management Board on 19 December 2018.

**Information on the Corporate Secretary**

Pavel Chereshenkov (born in 1971) - Corporate Secretary of PJSC MMK since 2017; Russian citizen.


Owns 400 shares (0.000004%) of PJSC MMK.

**Information about Transactions for the Acquisition or Disposal of Shares of PJSC MMK Effected by the Person Performing the Functions of the Company’s Sole Executive Body, Members of the Management Board and/or Members of the Board of Directors.**

<table>
<thead>
<tr>
<th>No</th>
<th>Full name</th>
<th>Job title</th>
<th>Transaction date</th>
<th>Subject of transaction</th>
<th>Type (category) of shares</th>
<th>Number of shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pavel Shilyaev</td>
<td>Member of the PJSC MMK Board of Directors</td>
<td>11 January 2018</td>
<td>Acquisition of shares</td>
<td>Registered ordinary shares</td>
<td>6,800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Member of the PJSC MMK Management Board</td>
<td>2 August 2018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>General Director of PJSC MMK</td>
<td></td>
<td></td>
<td></td>
<td>9,900</td>
</tr>
</tbody>
</table>
Remuneration of Members of the Company’s Board of Directors and Management

Remuneration of Members of the Board of Directors

Pursuant to Article 64(2) of the Federal Law on Joint-Stock Companies, members of the Board of Directors may receive remuneration and/or reimbursement of expenses related to the performance of their duties as members of the Board of Directors during their term of office according to a resolution of the General Shareholders’ Meeting. The amount of such remuneration and compensation is determined by the General Shareholders’ Meeting.

Criteria for determining remuneration

Criteria for determining the remuneration of Board members are set out in the Regulations on the Procedure for Remuneration and Compensation of Expenses of Members of the Board of Directors of PJSC MMK.

The amount of remuneration and reimbursement of expenses of members of PJSC MMK’s Board of Directors is approved by the General Shareholders’ Meeting on an annual basis according to recommendations made by the Board of Directors.

PJSC MMK compensates documented expenses on the part of members of the Board of Directors related to the performance of their duties as a member of the Board of Directors (travel expenses, including accommodations; communication and mail expenses).

In 2018, the amount of remuneration and reimbursement of expenses for members of PJSC MMK’s Board of Directors totalled RUB 59,513.7 thousand, including RUB 57,714 thousand for remuneration for participation in the activities of the Company’s governing bodies and RUB 1,799.7 thousand for reimbursement of expenses.

Remuneration of members of PJSC MMK’s Management Board

Management Board members, during the period in which they perform their duties as members of the MMK Management Board, are not paid a separate fee and do not receive reimbursement for expenses as members of the Board. Board members are paid wages for the performance of their official duties within PJSC MMK. Remuneration (wages) of the General Director of PJSC MMK and of the top managers includes their monthly salary, a regional coefficient and an annual bonus.

Remuneration of the 15 members of the Management Board for 2018 amounted to RUB 344,989.2 thousand, including an annual bonus in the amount of RUB 131,584.3 thousand.

The Audit Commission of PJSC MMK*

To exercise control over the Company’s financial and economic activities, the General Shareholders’ Meeting elected an Audit Commission on 1 June 2018, in accordance with the Company’s Charter. The Audit Commission consists of three members. The Audit Commission carried out its activities in accordance with the Regulations on the Audit Commission.

Information on the Audit Commission

<table>
<thead>
<tr>
<th>Functions</th>
<th>Internal audit of the Company’s financial and business operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of members:</td>
<td>3</td>
</tr>
<tr>
<td>Chairman:</td>
<td>Alexander Maslennikov (born in 1969)</td>
</tr>
<tr>
<td>Members of the Commission:</td>
<td>Galina Akimova (born in 1969)</td>
</tr>
</tbody>
</table>
Oksana Dyuldina (born in 1971)

<table>
<thead>
<tr>
<th>Remuneration of the Audit Commission</th>
<th>On 1 June 2018, MMK's Annual General Shareholders’ Meeting approved remuneration and compensation for members of the Audit Commission totalling RUB 15 million.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory documents:</td>
<td><a href="http://eng.mmk.ru/corporate_governance/internal_documents/">http://eng.mmk.ru/corporate_governance/internal_documents/</a></td>
</tr>
</tbody>
</table>

* By the decision of the Extraordinary General Shareholders' Meeting of 25 February 2019, the Audit Commission was abolished (the relevant changes were made to the Charter, the powers of the members of the Audit Commission were terminated prior to the end of their term, and the Regulation on the Audit Commission was declared to be no longer in force).

Information on the structure and competencies of the bodies controlling the Company's financial and business operations

Control over the Company's financial and business operations is exercised by the Audit Commission (see the section on the Audit Commission) and the auditor. The Company's auditor is an audit organisation that is not related by property interests to the Company or its shareholders. The Company's auditor carries out an audit of the Company's financial and business operations in accordance with the applicable laws of the Russian Federation on the basis of a contract concluded with the auditor. The contract with the auditor is signed on behalf of the Company by the Company's General Director.

For the purpose of more effective control over the Company's financial and business operations, PJSC MMK established a Board of Directors Audit Committee (see the section on the Board of Directors committees) and an Internal Audit Department. The department is a functional structural subdivision of PJSC MMK and reports administratively to the General Director and functionally to the Board of Directors.

The activities of the Internal Audit Department cover PJSC MMK and the companies that make up PJSC MMK Group.

The main tasks of the Internal Audit Department are:

- assisting the management of PJSC MMK and the companies of PJSC MMK Group in the development and monitoring of the implementation of procedures and measures aimed at improving risk management, internal control and corporate governance systems;
- coordination of activities with individuals providing consulting services in the field of risk management, internal control and corporate governance;
- preparing and submitting to the Board of Directors (Audit Committee) and the management bodies of PJSC MMK reports on the performance of the Internal Audit Department (including information on significant risks, deficiencies, results and the effectiveness of measures to eliminate identified deficiencies).

The main functions of the Internal Audit Department are:

- conducting an independent analysis of the functioning and an assessment of the performance of the risk management, internal control and corporate governance systems;
- conducting internal audits of business processes, systems, structural departments (divisions) or other subjects of assessment:
  ✓ assessing management performance in terms of the reasonableness, expediency and risk orientation of decisions taken;
✓ evaluating the performance and adequacy of existing internal control procedures;
✓ evaluating the performance of risk management;
✓ identifying precursors to violations and irregularities;
✓ developing proposals for the improvement of operations;
✓ monitoring the implementation of recommendations based on previous audits;

• providing advice aimed at improving the risk management, internal control and corporate governance systems within the limits established by the International Standards for the Professional Practice of Internal Auditing;
• monitoring changes in laws governing the functioning and audit of the risk management, internal control and corporate governance systems to meet the requirements of financial markets;
• conducting an analysis of the implementation of proposals and recommendations from internal and external regulatory bodies.
Information for Shareholders and Investors

Information on the Company’s Registrar

CJSC Registrar Company STATUS (licence #10-000-1-00304, issued for an indefinite period on 12 March 2004 by the Federal Agency for Financial Markets) is responsible for maintaining PJSC MMK’s share register.

The Registrar’s registered office is located at:

Ul. Novorogozhskaya 32, Building 1, Moscow, 109544, Russian Federation, Ring Park Business Centre, Tel.: (495) 974-83-50.

Fax: (495) 678-71-10.

E-mail: office@rostatus.ru

Magnitogorsk Branch of STATUS:

Pr. Karla Marksa 212, Magnitogorsk, 455008 Russian Federation

Tel.: (3519) 25-60-22, 25-60-23

Information on changes in equity during the year

MMK’s authorised capital totals RUB 11,174,330,000 and is comprised of 11,174,330,000 ordinary registered shares with a par value of RUB 1 each. All shares are placed securities. The Company is entitled to place, in addition to those already placed, 26,299,840,577 ordinary shares with a par value of RUB 1 each (declared shares). Declared ordinary shares grant the same rights as placed ordinary shares.

As of 14 January 2019 (the date when the list of persons entitled to participate in the Extraordinary General Shareholders’ Meeting of 25 February 2019), the Company had 18,921 shareholders.

Share capital structure as of 14 January 2019:

<table>
<thead>
<tr>
<th>Name</th>
<th>Share, % of authorised capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mintha Holding Limited*</td>
<td>84.26%</td>
</tr>
<tr>
<td>The Bank of New York Mellon**</td>
<td>3.95%</td>
</tr>
<tr>
<td>Other</td>
<td>11.79%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

*The Chairman of PJSC MMK’s Board of Directors, Victor Rashnikov, is the beneficiary of Mintha Holding Ltd.

**The beneficiaries are owners of global depositary receipts traded on the London Stock Exchange.

MMK’s management is not aware of any shareholders holding over 5% of the Company’s shares other than those disclosed above.

Report on the Payment of Announced (Accrued) Dividends on MMK Shares

The Board of Directors of MMK on 21 April 2017 approved the new Regulations on the Dividend Policy of PJSC MMK.

MMK’s dividend policy is based on shareholders’ interests and the Company’s requirements for further growth and technological upgrades.

In making recommendations on the size of dividends, the Board of Directors is guided by the following principles:
• provided that the net debt/EBITDA ratio calculated on the basis of the Company’s consolidated financial statements is below 1.0x, the amount allocated for dividend payment will generally be at least 50% of the free cash flow calculated on the basis of MMK's consolidated financial statements prepared in accordance with International Financial Reporting Standards;

• if the net debt/EBITDA ratio is 1.0x, the amount allocated for dividend payment will generally be at least 30% of the free cash flow calculated on the basis of MMK’s consolidated financial statements prepared in accordance with International Financial Reporting Standards.

In recommending the size of dividends, the Board of Directors may also use other indicators in addition to free cash flow determined on the basis of the consolidated financial statements of PJSC MMK, prepared in accordance with International Financial Reporting Standards. Such indicators may include: net profit, as reported in the Company’s IFRS consolidated financial statements, or net profit determined on the basis of financial statements of PJSC MMK prepared in accordance with Russian Accounting Standards.

The Regulations on the Dividend Policy can be found online at the following addresses:
http://www.mmk.ru/for_investor/shares/dividends/
http://www.mmk.ru/corporate_governance/internal_documents/group_documents/

In 2018, dividends were declared quarterly by decisions of the General Shareholders’ Meeting:

1. On 5 February 2018, the Board of Directors recommended that MMK’s Annual Shareholders’ Meeting approve a dividend payout based on results for FY 2017 in the amount of RUB 0.806 per share. On 1 June 2018, the Annual General Shareholders’ Meeting approved the payout of dividends in the amount recommended by the Board of Directors. The dividends were paid in the term stipulated by law: to nominal shareholders of MMK and trust managers by 27 June 2018 and to other shareholders in the register of shareholders by 18 July 2018.

2. On 7 May 2018, the Board of Directors recommended that an Extraordinary General Shareholders’ Meeting approve a dividend payout based on results for Q1 2018 in the amount of RUB 0.801 per share. On 13 June 2018, an Extraordinary General Shareholders’ Meeting approved the payout of dividends in the amount recommended by the Board of Directors. The dividends were paid in the term stipulated by law: to nominal shareholders of MMK and trust managers by 9 July 2018 and to other shareholders in the register of shareholders by 30 July 2018.

3. On 1 August 2018, the Board of Directors recommended that an Extraordinary General Shareholders’ Meeting approve a dividend payout based on results for H1 2018 in the amount of RUB 1.589 per share. On 28 September 2018, an Extraordinary General Shareholders’ Meeting approved the payout of dividends in the amount recommended by the Board of Directors. The dividends were paid in the term stipulated by law: to nominal shareholders of MMK and trust managers by 23 October 2018 and to other shareholders in the register of shareholders by 14 November 2018.

4. On 1 November 2018, the Board of Directors recommended that an Extraordinary General Shareholders’ Meeting approve a dividend payout based on results for Q3 2018 in the amount of RUB 2.114 per share. On 7 December 2018, an Extraordinary General Shareholders’ Meeting approved the payout of dividends in the amount recommended by the Board of Directors. The dividends were paid in the term stipulated by law: to nominal shareholders of MMK and trust managers by 9 January 2019 and to other shareholders in the register of shareholders by 30 January 2019.
**Dividend payouts for MMK shares over the last five years***:

<table>
<thead>
<tr>
<th>Basis year for dividend accrual</th>
<th>Dividend per share, RUB</th>
<th>Dividends accrued</th>
<th>Dividend as a proportion of IFRS net profit, %</th>
<th>Dividend yield according to share price at year-end, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0.00</td>
<td>0.00</td>
<td>RUB ths</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.00</td>
<td>USD ths</td>
<td></td>
</tr>
<tr>
<td>2014 (for Q3)</td>
<td>0.580</td>
<td>6,481,111.40</td>
<td>RUB ths</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>118,283.13</td>
<td>USD ths</td>
<td></td>
</tr>
<tr>
<td>2015 (for H1 and FY)</td>
<td>0.890</td>
<td>9,945,153.70</td>
<td>RUB ths</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>151,812.49</td>
<td>USD ths</td>
<td></td>
</tr>
<tr>
<td>2016 (for H1 and FY)</td>
<td>1.962</td>
<td>21,924,035.46</td>
<td>RUB ths</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>374,907.78</td>
<td>USD ths</td>
<td></td>
</tr>
<tr>
<td>2017 (for H1, Q3 and FY)</td>
<td>2,786</td>
<td>31,131,683.38</td>
<td>RUB ths</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>520,797.41</td>
<td>USD ths</td>
<td></td>
</tr>
<tr>
<td>2018 (for Q1, H1 and Q3)</td>
<td>4,504</td>
<td>50,329,182.32</td>
<td>RUB ths</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>767,234.17</td>
<td>USD ths</td>
<td></td>
</tr>
</tbody>
</table>

* A detailed report on the amount of dividends on shares of PJSC MMK can be found online at: [http://eng.mmk.ru/for_investor/shares/dividends/](http://eng.mmk.ru/for_investor/shares/dividends/).

**MMK shares**

MMK shares are traded on the leading Russian stock exchange (MOEX) and are listed on the London Stock Exchange (LSE).

<table>
<thead>
<tr>
<th>Market</th>
<th>Issuer code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moscow Exchange</td>
<td>MAGN</td>
</tr>
<tr>
<td>LSE, London</td>
<td>MMK</td>
</tr>
</tbody>
</table>

Ordinary MMK shares are traded on the Moscow Exchange.

On the London Stock Exchange, MMK shares are traded in the form of global depositary receipts (GDRs). One GDR represents 13 shares. PJSC MMK’s free float amounts to 15.7% of its shares.

Some 85% of the trading volume in 2018 took place on Moscow Exchange, with the remaining 15% on the LSE. On average, there was a total of USD 7.3 million in trading in MMK shares per session, a decrease of 30% y-o-y.
Market capitalisation

At the end of 2018, the price of one MMK GDR on the LSE was USD 8.29, representing a market capitalisation of USD 7.1 billion (down 15% y-o-y).

Information for Shareholders on the Company’s website

MMK’s website, www.mmk.ru, provides general information about the Company, MMK share prices, financial reports, a list of analysts covering MMK and contact information. Corporate presentations and financial statements can also be found on the site.

Source: MOEX, LSE, VTB

Information on shares, Moscow Stock Exchange

<table>
<thead>
<tr>
<th>Name</th>
<th>Magnitogorsk Iron and Steel Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ticker symbol</td>
<td>Magn</td>
</tr>
</tbody>
</table>
ISIN | RU0009084396
--- | ---
Maximum price, 2018 | 53.485
Minimum price, 2018 | 41.38
Price as of 29 December 2018 | 43.04
Market capitalisation, 29 December 2018, RUB | 480,943,163,200
Number of shares in circulation | 11,174,330,000

**Information on GDRs, London Stock Exchange**

<table>
<thead>
<tr>
<th>Name</th>
<th>Magnitogorsk Iron and Steel Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ticker symbol</td>
<td>MMK</td>
</tr>
<tr>
<td>ISIN</td>
<td>US5591892048</td>
</tr>
<tr>
<td>Maximum price, 2018</td>
<td>11.1</td>
</tr>
<tr>
<td>Minimum price, 2018</td>
<td>7.78</td>
</tr>
<tr>
<td>Price as of 29 December 2018</td>
<td>8.29</td>
</tr>
<tr>
<td>Average daily trading volumes, 2018, USD</td>
<td>1</td>
</tr>
<tr>
<td>Market capitalisation, 29 December 2018, USD</td>
<td>7,125,784,285</td>
</tr>
</tbody>
</table>