

Mechel PAO
Form 20-F
April 05, 2018
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 20-F

**REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES
EXCHANGE ACT OF 1934**

OR

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT
OF 1934**

For the fiscal year ended December 31, 2017

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE
ACT OF 1934**

OR

**SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934**

Commission file number 001-32328

MECHEL PAO

(Exact name of Registrant as specified in its charter)

RUSSIAN FEDERATION

(Jurisdiction of incorporation or organization)

Krasnoarmeyskaya Street 1, Moscow 125167, Russian Federation

(Address of principal executive offices)

Alexey Lukashov, tel.: +7-495-221-8888, e-mail: alexey.lukashov@mechel.com

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
COMMON AMERICAN DEPOSITARY SHARES, EACH COMMON ADS REPRESENTING TWO COMMON SHARES COMMON SHARES, PAR VALUE	NEW YORK STOCK EXCHANGE
10 RUSSIAN RUBLES PER SHARE	NEW YORK STOCK EXCHANGE⁽¹⁾
PREFERRED AMERICAN DEPOSITARY SHARES, EACH PREFERRED ADS REPRESENTING ONE-HALF OF A PREFERRED SHARE PREFERRED SHARES, PAR VALUE	NEW YORK STOCK EXCHANGE
10 RUSSIAN RUBLES PER SHARE	NEW YORK STOCK EXCHANGE⁽²⁾

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

416,270,745 common shares, of which 70,756,548 shares are in the form of common ADSs as of March 31, 2018

138,756,915 preferred shares (including 55,502,766 shares held by Skyblock Limited, a wholly-owned subsidiary of Mechel), of which 9,768,117 shares are in the form of preferred ADSs as of March 31, 2018

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check One):

Large accelerated filer	Accelerated filer	Non-accelerated filer
If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.		

The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

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U.S. GAAP

International Financial Reporting Standards as issued by
the International Accounting Standards Board

Other

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

- (1) Listed, not for trading or quotation purposes, but only in connection with the registration of common ADSs pursuant to the requirements of the Securities and Exchange Commission.
- (2) Listed, not for trading or quotation purposes, but only in connection with the registration of preferred ADSs pursuant to the requirements of the Securities and Exchange Commission.

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Unless the context otherwise requires, references to Mechel refer to Mechel PAO, and references to Mechel group, our group, we, us or our refer to Mechel PAO together with its subsidiaries.

Our business consists of three segments: mining, steel and power. References in this document to segment revenues are to revenues of the segment excluding intersegment sales, unless otherwise noted. References in this document to our sales or our total sales are to third-party sales and do not include intra-group sales, unless otherwise noted.

For the purposes of calculating certain market share data, we have included businesses that are currently part of our group that may not have been part of our group during the period for which such market share data is presented.

The presentation currency of our consolidated financial statements is the Russian ruble. Before transition to IFRS, U.S. dollar was the presentation currency of our consolidated financial statements prepared under U.S. GAAP. The

reason of adopting the Russian ruble as the presentation currency in the consolidated financial statements under IFRS is to allow a greater transparency of our financial and operating performance as it more closely reflects the profile of our revenue and operating income that are mostly generated in Russian rubles.

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References to Russian rubles, rubles or RUB are to the currency of the Russian Federation, references to U.S. dollars, \$ or USD are to the currency of the United States and references to euro, or EUR are to the currency of the member states of the European Union that participate in the Economic and Monetary Union.

The term tonne as used herein means a metric tonne. A metric tonne is equal to 1,000 kilograms or 2,204.62 pounds. The term short ton is also used in this document. A short ton is equal to 907 kilograms or 2,000 pounds.

Certain amounts that appear in this document have been subject to rounding adjustments; accordingly, figures shown as totals in certain tables or in the text may not be an arithmetic aggregation of the figures that precede them.

CIS means the Commonwealth of Independent States.

The following table sets forth by business activity the official names and location of our key subsidiaries and their names as used in this document:

Name as Used in This Document	Official Name	Location
<i>Mining</i>		
Mechel Mining	Mechel Mining AO ⁽¹⁾	Russia, Moscow
Southern Kuzbass Coal Company	Southern Kuzbass Coal Company PAO ⁽¹⁾	Russia, Kemerovo region
Yakutugol	Yakutugol Joint-Stock Holding Company ⁽¹⁾	Russia, Sakha Republic
Elgaugol	Elgaugol OOO	Russia, Sakha Republic
Korshunov Mining Plant	Korshunov Mining Plant PAO ⁽¹⁾	Russia, Irkutsk region
Moscow Coke and Gas Plant	Moscow Coke and Gas Plant JSC ⁽¹⁾	Russia, Moscow region
Mechel Coke	Mechel Coke OOO	Russia, Chelyabinsk region
Port Posiet	Port Posiet JSC ⁽¹⁾	Russia, Primorsky Krai
Port Temryuk	Port Mechel Temryuk OOO	Russia, Krasnodar Krai
<i>Steel</i>		
Chelyabinsk Metallurgical Plant	Chelyabinsk Metallurgical Plant PAO ⁽¹⁾	Russia, Chelyabinsk region
Izhstal	Izhstal PAO ⁽¹⁾	Russia, Republic of Udmurtia
Urals Stampings Plant	Urals Stampings Plant PAO ⁽¹⁾	Russia, Chelyabinsk region
Beloretsk Metallurgical Plant	Beloretsk Metallurgical Plant AO ⁽¹⁾	Russia, Republic of Bashkortostan
Vyartsilya Metal Products Plant	Vyartsilya Metal Products Plant AO ⁽¹⁾	Russia, Republic of Karelia
Mechel Nemunas	Mechel Nemunas UAB	Lithuania
Bratsk Ferroalloy Plant	Bratsk Ferroalloy Plant OOO	Russia, Irkutsk region
Port Kambarka	Port Kambarka AO ⁽¹⁾	Russia, Republic of Udmurtia
<i>Power</i>		
Southern Kuzbass Power Plant	Southern Kuzbass Power Plant PAO ⁽¹⁾	Russia, Kemerovo region
Kuzbass Power Sales Company	Kuzbass Power Sales Company PAO ⁽¹⁾	Russia, Kemerovo region
Mechel Energo	Mechel Energo OOO	Russia, Chelyabinsk region
<i>Marketing and Distribution</i>		
Mechel Carbon	Mechel Carbon AG	Switzerland, Baar
Mechel Service Global	Mechel Service Global B.V.	Netherlands
Mechel Service	Mechel Service OOO	Russia, Moscow

Other

Mecheltrans

Mecheltrans OOO

Russia, Moscow

- (1) The legal organizational form of our Russian subsidiaries and Mechel has been changed in accordance with the current legislation of the Russian Federation.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Matters discussed in this document may constitute forward-looking statements, as defined in the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. We wish to caution you that these statements are only predictions and that actual events or results may differ materially. Forward-looking statements include statements concerning plans, objectives, goals, strategies, future events or performance, and underlying assumptions and other statements, which are other than statements of historical facts. The words believe, expect, anticipate, intend, estimate, forecast, project, will, may, should and similar expressions identify forward-looking statements. Forward-looking statements appear in a number of places including, without limitation, Item 3. Key Information Risk Factors, Item 4. Information on the Company and Item 5. Operating and Financial Review and Prospects, and include statements regarding:

strategies, outlook and growth prospects;

the ability to maintain and generate sufficient cash and other liquid resources to meet our operating and debt service requirements;

our ability to comply with the financial covenants in our loan agreements as well as other covenants and restrictions imposed by the existing and future financing arrangements and our ability to attract new financing or refinancing of debt, including an outcome in the ongoing debt restructuring negotiations with our lenders;

the impact of competition;

capital expenditures;

demand for our products;

economic outlook and industry trends;

transactions with related parties;

regulatory compliance;

developments in our markets;

future plans and potential for future growth;

the results of any legal procedures;

the impact of regulatory initiatives; and

the strength of our competitors.

The forward-looking statements in this document are based upon various assumptions, many of which are based, in turn, upon further assumptions, including without limitation, management's examination of historical operating trends, data contained in our records and other data available from third parties. Although we believe that these assumptions were reasonable when made, these assumptions are inherently subject to significant uncertainties and contingencies which are difficult or impossible to predict and are beyond our control and we may not achieve or accomplish these expectations, beliefs or projections. See Item 3. Key Information Risk Factors for a discussion of important factors that, in our view, could cause actual results to differ materially from those discussed in the forward-looking statements.

Except to the extent required by law, neither we, nor any of our agents, employees or advisers intend or have any duty or obligation to supplement, amend, update or revise any of the forward-looking statements contained or incorporated by reference in this document.

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PART I

Item 1. *Identity of Directors, Senior Management and Advisers*

Not applicable.

Item 2. *Offer Statistics and Expected Timetable*

Not applicable.

Item 3. *Key Information*

Selected Financial Data

The financial data set forth below as of December 31, 2017, 2016, 2015 and 2014, and for the years then ended, have been derived from our consolidated financial statements. Our reporting currency is the Russian ruble and we prepare our consolidated financial statements in accordance with International Financial Reporting Standards (**IFRS**).

The consolidated financial statements for the year ended December 31, 2015 were the first we had prepared in accordance with IFRS. The date of transition to IFRS was January 1, 2014. For periods up to and including the year ended December 31, 2014, we prepared our consolidated financial statements in accordance with U.S. GAAP. Accordingly, we have prepared consolidated financial statements that comply with IFRS applicable as of December 31, 2017, together with the comparative periods data for the years ended December 31, 2016 and 2015.

Pursuant to the transitional relief granted by the U.S. SEC in respect of the first-time adoption of IFRS, we have only provided financial data for three fiscal years ended December 31, 2016 in the previously filed annual report for the year ended December 31, 2016 as presented under IFRS, we have provided selected financial data for four fiscal years ended December 31, 2017 herein.

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The selected financial data set forth below should be read in conjunction with, and is qualified in its entirety by reference to, Item 5. Operating and Financial Review and Prospects and our audited consolidated financial statements and the notes thereto included in this annual report.

	Year Ended December 31,			
	2017	2016	2015	2014
	(In millions of Russian rubles, unless stated otherwise)			
Consolidated statement of profit (loss) and other comprehensive income (loss) data:				
Revenue	299,113	276,009	253,141	243,992
Cost of sales	(160,356)	(146,322)	(151,334)	(153,057)
Gross profit	138,757	129,687	101,807	90,935
Total selling, distribution and operating income and (expenses), net	(81,590)	(86,997)	(77,555)	(90,028)
Operating profit	57,167	42,690	24,252	907
Total other income and (expense), net	(41,447)	(28,539)	(131,380)	(131,994)
Profit (loss) before tax from continuing operations	15,720	14,151	(107,128)	(131,087)
Income tax (expense) benefit	(3,150)	(4,893)	(8,322)	8,822
Profit (loss) for the year from continuing operations	12,570	9,258	(115,450)	(122,265)
(Loss) profit after tax for the year from discontinued operations, net		(426)	822	(11,702)
Profit (loss) for the year	12,570	8,832	(114,628)	(133,967)
Less: profit (loss) attributable to non-controlling interests	1,013	1,706	535	(1,263)
Profit (loss) attributable to equity shareholders of Mechel PAO	11,557	7,126	(115,163)	(132,704)
Profit (loss) for the year	12,570	8,832	(114,628)	(133,967)
Exchange differences on translation of foreign operations	313	431	287	1,168
Net (loss) gain on available for sale financial assets		(1)	8	2
Re-measurement of defined benefit plans	145	(23)	(194)	(127)
Total comprehensive income (loss) for the year, net of tax	13,028	9,239	(114,527)	(132,924)
Total comprehensive income (loss) attributable to non-controlling interests	1,016	1,710	537	(1,249)
Total comprehensive income (loss) attributable to equity shareholders of Mechel PAO	12,012	7,529	(115,064)	(131,675)
Earnings (loss) per share from continuing operations (Russian rubles per share), basic and diluted	28	18	(278)	(290)

(Loss) earnings per share from discontinued operations (Russian rubles per share)		(1)	2	(29)
Basic and diluted, profit (loss) for the year attributable to common equity shareholders of Mechel PAO	28	17	(277)	(319)

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	Year Ended December 31,			
	2017	2016	2015	2014
	(In millions of Russian rubles, unless stated otherwise)			
Cash dividends declared per common share (Russian rubles per share)				
Cash dividends declared per preferred share (Russian rubles per share)		10.28	0.05	0.05
Weighted average number of common shares	416,270,745	416,270,745	416,270,745	416,270,745
Mining segment statement of profit (loss) data⁽¹⁾:				
Revenue	142,416	121,555	108,723	100,558
Cost of sales	(48,952)	(45,040)	(51,280)	(51,435)
Gross profit	93,464	76,515	57,442	49,123
Total selling, distribution and operating income and (expenses), net	(45,273)	(45,503)	(41,437)	(47,405)
Operating profit	48,191	31,012	16,005	1,718
Steel segment statement of profit (loss) data⁽¹⁾:				
Revenue	180,382	168,893	153,004	146,867
Cost of sales	(146,369)	(126,745)	(119,610)	(115,485)
Gross profit	34,013	42,148	33,394	31,382
Total selling, distribution and operating income and (expenses), net	(24,859)	(30,617)	(24,868)	(32,701)
Operating profit (loss)	9,154	11,531	8,526	(1,319)
Power segment statement of profit (loss) data⁽¹⁾:				
Revenue	42,562	40,625	41,467	39,554
Cost of sales	(29,838)	(29,047)	(30,178)	(29,215)
Gross profit	12,724	11,578	11,289	10,339
Total selling, distribution and operating income and (expenses), net	(11,458)	(10,877)	(11,250)	(9,922)
Operating profit	1,266	701	39	417
Consolidated statement of financial position data (at period end):				
Total assets	319,127	325,465	342,071	369,258
Equity attributable to equity shareholders of Mechel PAO	(253,066)	(260,274)	(267,803)	(154,666)
Equity attributable to non-controlling interests	8,933	7,687	5,948	8,253

Interest-bearing loans and borrowings, including interest payable, fines and penalties on overdue amounts of RUB 41,992 million, RUB 38,594 million, RUB 47,475 million and RUB 14,615 million as of December 31, 2017, 2016, 2015 and 2014, respectively	422,533	434,165	491,674	386,518
Non-current interest-bearing loans and borrowings	17,360	11,644	4,308	9,346

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	Year Ended December 31,			
	2017	2016	2015	2014
	(In millions of Russian rubles, unless stated otherwise)			
Consolidated statement of cash flows data:				
Net cash provided by operating activities	63,282	53,207	38,867	43,013
Net cash used in investing activities	(7,138)	(4,969)	(5,218)	(14,494)
Net cash used in financing activities	(55,737)	(45,869)	(34,433)	(34,206)
Non-IFRS measures⁽²⁾:				
Consolidated Adjusted EBITDA	81,106	66,164	45,730	29,759
Mining Segment Adjusted EBITDA	61,425	41,884	26,831	13,359
Steel Segment Adjusted EBITDA	18,817	23,172	17,127	14,906
Power Segment Adjusted EBITDA	2,308	1,662	2,090	1,403

- (1) Segment revenues and cost of sales include intersegment sales.
- (2) Adjusted EBITDA represents profit (loss) attributable to equity shareholders of Mechel PAO before depreciation, depletion and amortization, foreign exchange (gain) loss, net, finance costs, including fines and penalties on overdue loans and borrowings and finance lease payments, finance income, net result on the disposal of non-current assets, impairment of goodwill and other non-current assets, write-off of accounts receivable, provision (reversal of provision) for doubtful accounts, write-off of inventories to net realizable value, loss (profit) after tax for the year from discontinued operations, net, net result on the disposal of subsidiaries, profit (loss) attributable to non-controlling interests, income tax expense (benefit), pension service cost and actuarial loss, other related expenses, other fines and penalties, gain on restructuring and forgiveness of accounts payable and write-off of accounts payable with expired legal term, other one-off items.

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Reconciliation of Adjusted EBITDA to profit (loss) attributable to equity shareholders of Mechel PAO is as follows for the periods indicated:

	Year Ended December 31,			
	2017	2016	2015	2014
	(In millions of Russian rubles)			
Consolidated Adjusted EBITDA reconciliation:				
Profit (loss) attributable to equity shareholders of Mechel PAO	11,557	7,126	(115,163)	(132,704)
Add:				
Depreciation, depletion and amortization	14,227	13,714	14,085	14,429
Foreign exchange (gain) loss, net	(4,237)	(25,947)	71,106	103,176
Finance costs, including fines and penalties on overdue loans and borrowings and finance lease payments	47,610	54,240	60,452	28,110
Finance income	(633)	(1,176)	(183)	(107)
Net result on the disposal of non-current assets, impairment of goodwill and other non-current assets, write-off of accounts receivable, provision (reversal of provision) for doubtful accounts and write-off of inventories to net realizable value	7,334	8,447	4,772	12,710
Loss (profit) after tax for the year from discontinued operations, net		426	(932)	11,702
Net result on the disposal of subsidiaries	(470)	(194)	19	89
Profit (loss) attributable to non-controlling interests	1,013	1,706	535	(1,263)
Income tax expense (benefit)	3,150	4,893	8,322	(8,822)
Pension service cost and actuarial loss, other related expenses	(33)	(171)	50	(6)
Other fines and penalties	2,551	1,396	1,598	915
Gain on restructuring and forgiveness of accounts payable and write-off of accounts payable with expired legal term	(963)	(115)	(224)	(38)
Other one-off items		1,819	1,293	1,568
Consolidated Adjusted EBITDA	81,106	66,164	45,730	29,759
Mining Segment Adjusted EBITDA reconciliation:				
Profit (loss) attributable to equity shareholders of Mechel PAO	18,188	1,797	(71,120)	(86,787)
Add:				
Depreciation, depletion and amortization	7,979	7,912	9,106	8,747
Foreign exchange (gain) loss, net	(4,379)	(14,960)	49,872	70,553
Finance costs, including fines and penalties on overdue loans and borrowings and finance lease payments	34,546	39,345	33,880	15,045
Finance income	(1,810)	(2,482)	(1,030)	(777)
Net result on the disposal of non-current assets, impairment of goodwill and other non-current assets, write-off of accounts receivable, provision (reversal of provision) for doubtful accounts and write-off of inventories to net realizable value	4,443	2,584	900	1,357
(Profit) loss after tax for the year from discontinued operations, net			(764)	13,141
Net result on the disposal of subsidiaries	(470)			
Profit (loss) attributable to non-controlling interests	407	511	(444)	(971)
Income tax expense (benefit)	2,023	5,019	5,632	(8,435)

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Pension service cost and actuarial loss, other related expenses	(58)	(198)	125	(5)
Other fines and penalties	941	556	707	755
Gain on restructuring and forgiveness of accounts payable and write-off of accounts payable with expired legal term	(385)	(19)	(33)	(2)
Other one-off items		1,819		741
Mining Segment Adjusted EBITDA	61,425	41,884	26,831	13,359

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	Year Ended December 31,			
	2017	2016	2015	2014
	(In millions of Russian rubles)			
Steel Segment Adjusted EBITDA reconciliation:				
(Loss) profit attributable to equity shareholders of Mechel PAO	(5,130)	6,399	(41,438)	(45,356)
Add:				
Depreciation, depletion and amortization	5,800	5,435	4,650	5,391
Foreign exchange loss (gain), net	144	(10,904)	21,122	32,910
Finance costs, including fines and penalties on overdue loans and borrowings and finance lease payments	14,136	17,411	25,645	12,966
Finance income	(717)	(2,234)	(344)	(390)
Net result on the disposal of non-current assets, impairment of goodwill and other non-current assets, write-off of accounts receivable, provision (reversal of provision) for doubtful accounts and write-off of inventories to net realizable value	2,406	5,389	2,122	10,658
Loss (profit) after tax for the year from discontinued operations, net		406	(168)	(1,468)
Net result on the disposal of subsidiaries		(194)	19	89
Profit (loss) attributable to non-controlling interests	417	1,056	812	(408)
Income tax expense (benefit)	800	(265)	2,794	(374)
Pension service cost and actuarial loss, other related expenses	22	26	(81)	(7)
Other fines and penalties	1,512	742	890	189
Gain on restructuring and forgiveness of accounts payable and write-off of accounts payable with expired legal term	(573)	(95)	(190)	(35)
Other one-off items			1,263	742
Steel Segment Adjusted EBITDA	18,817	23,172	17,127	14,906
Power Segment Adjusted EBITDA reconciliation:				
Loss attributable to equity shareholders of Mechel PAO	(59)	(517)	(2,286)	(651)
Add:				
Depreciation, depletion and amortization	448	367	329	291
Foreign exchange (gain) loss, net	(2)	(83)	111	(287)
Finance costs, including fines and penalties on overdue loans and borrowings and finance lease payments	880	1,078	2,173	1,208
Finance income	(57)	(54)	(55)	(48)
Net result on the disposal of non-current assets, impairment of goodwill and other non-current assets, write-off of accounts receivable, provision (reversal of provision) for doubtful accounts and write-off of inventories to net realizable value	486	474	1,751	696
Loss (profit) after tax for the year from discontinued operations, net		20		29
Net result on the disposal of subsidiaries				
Profit attributable to non-controlling interests	189	139	166	114
Income tax expense (benefit)	327	139	(103)	(13)
Pension service cost and actuarial loss, other related expenses	3	2	6	7
Other fines and penalties	98	98		(29)
Gain on restructuring and forgiveness of accounts payable and write-off of accounts payable with expired legal term	(5)	(1)	(1)	
Other one-off items				86

Power Segment Adjusted EBITDA	2,308	1,662	2,090	1,403
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Adjusted EBITDA is a measure of our operating performance that is not required by, or presented in accordance with, IFRS. Adjusted EBITDA is not a measure of our operating performance under IFRS and should not be considered as an alternative to net income, operating income or any other performance measures derived in accordance with IFRS or as an alternative to cash flow from operating activities or as a measure of our liquidity. In particular, Adjusted EBITDA should not be considered as a measure of discretionary cash available to us to invest in the growth of our business.

Adjusted EBITDA has limitations as an analytical tool, and should not be considered in isolation or as a substitute for analysis of our operating results as reported under IFRS. Some of these limitations are as follows:

Adjusted EBITDA does not reflect the impact of depreciation, depletion and amortization on our operating performance. The assets of our businesses which are being depreciated, depleted and/or amortized (including, for example, our mineral reserves) will have to be replaced in the future and such depreciation, depletion and amortization expense may approximate the cost to replace these assets in the future. By excluding such expense from Adjusted EBITDA, Adjusted EBITDA does not reflect our future cash requirements for such replacements.

Adjusted EBITDA does not reflect the impact of foreign exchange gains and losses, which may recur.

Adjusted EBITDA does not reflect the impact of finance income and finance costs, including fines and penalties on overdue loans and borrowings and finance lease payments, which are significant and could further increase if we incur more debt, on our operating performance.

Adjusted EBITDA does not reflect the impact of the net result on the disposal of non-current assets on our operating performance, which may recur.

Adjusted EBITDA does not reflect the impact of impairment of goodwill and other non-current assets, which may recur.

Adjusted EBITDA does not reflect the impact of write-off of accounts receivable, which may recur.

Adjusted EBITDA does not reflect the impact of provision (reversal of provision) for doubtful accounts, which may recur.

Adjusted EBITDA does not reflect the impact of write-off of inventories to net realizable value, which may recur.

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Adjusted EBITDA does not reflect the impact of profits and losses after tax for the year from discontinued operations.

Adjusted EBITDA does not reflect the impact of net result on the disposal of subsidiaries.

Adjusted EBITDA does not reflect the impact of profits and losses attributable to non-controlling interests on our operating performance.

Adjusted EBITDA does not reflect the impact of income tax expenses and benefits on our operating performance.

Adjusted EBITDA does not reflect the impact of pension service cost and actuarial loss, other related expenses.

Adjusted EBITDA does not reflect the impact of other fines and penalties.

Adjusted EBITDA does not reflect the impact of gain on restructuring and forgiveness of accounts payable and write-off of accounts payable with expired legal term.

Adjusted EBITDA does not reflect the impact of other one-off items.

Other companies in our industry may calculate Adjusted EBITDA differently or may use it for different purposes than we do, limiting its usefulness as a comparative measure.

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We compensate for these limitations by relying primarily on our IFRS operating results and using Adjusted EBITDA only supplementally. See our consolidated statement of financial position, consolidated statement of profit (loss) and other comprehensive income (loss) and consolidated statement of cash flows included elsewhere in this document.

Exchange Rates

The following tables show, for the periods indicated, certain information regarding the official exchange rate between the ruble and the U.S. dollar, based on data published by the Central Bank of the Russian Federation (the **CBR**).

These rates may differ from the actual rates used in preparation of our financial statements and other financial information provided herein.

Year Ended December 31,	Rubles per U.S. Dollar			
	High	Low	Average ⁽¹⁾	Period End
2017	60.75	55.85	58.35	57.60
2016	83.59	60.27	67.03	60.66
2015	72.88	49.18	60.96	72.88
2014	67.79	32.66	38.42	56.26
2013	33.47	29.93	31.85	32.73

(1) The average of the exchange rates on the last business day of each full month during the relevant period.

	Rubles per U.S. Dollar	
	High	Low
March 2018	57.76	56.37
February 2018	58.17	55.67
January 2018	57.60	55.83
December 2017	59.29	57.45
November 2017	60.25	58.09
October 2017	58.32	57.09

The exchange rate between the ruble and the U.S. dollar on April 5, 2018 was 57.76 rubles per one U.S. dollar.

No representation is made that the ruble or U.S. dollar amounts in this document could have been or can be converted into U.S. dollars or rubles, as the case may be, at any particular rate or at all.

Risk Factors

An investment in our shares and ADSs involves a high degree of risk. You should carefully consider the following information about these risks, together with the information contained in this document, before you decide to buy our shares or ADSs. If any of the following risks actually occurs, our business, financial condition, results of operations or prospects could be materially adversely affected. In that case, the value of our shares or ADSs could also decline and you could lose all or part of your investment.

Risks Relating to Our Financial Condition and Financial Reporting

There is substantial doubt about our ability to continue as a going concern.

As discussed in note 4 to our consolidated financial statements in Item 18. Financial Statements, because we have significant debt that we do not have the ability to repay without refinancing or restructuring, and our ability to do so is dependent upon continued negotiations with the banks, there is substantial doubt about our

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ability to continue as a going concern. We also note that there was a default on payments of principal and interest to certain lenders. In addition, we have been in non-compliance with certain financial and non-financial covenants in several loan agreements. See [Table of Contents](#). We face pressure on our liquidity, negatively influencing our working capital, which resulted from the acquisitions, substantial investment program, decrease in prices on commodity markets, global economic slowdown, difficulties with attracting new financing or refinancing of our debt and our need to service debt along with international sanctions against Russia and Russian state-owned banks, [Table of Contents](#). Our failure to comply with the payment and other obligations in our credit facilities caused some of our creditors to accelerate amounts due under their loan agreements and such failure, or like failure in the future, may cause the acceleration of our other outstanding debt, which could lead to cross-default under other borrowings and have a material adverse effect on our business, financial condition, results of operations and prospects, [Table of Contents](#). If we are unable to restructure all of our indebtedness or fail to comply with the new terms of the restructured indebtedness, our lenders may claim for accelerated repayment, which could lead to cross-default under other borrowings and have a material adverse effect on our business, financial condition, results of operations and prospects [Table of Contents](#) and [Table of Contents](#). We have a substantial amount of outstanding indebtedness with restrictive financial covenants and most shares and assets in our subsidiaries are pledged. Although as of December 31, 2017 restructuring with our major Russian lenders, such as Gazprombank, VTB Bank and Sberbank, was completed, we still have a number of creditors to which the debt is overdue and such creditors could (have the legal right to) request for accelerated repayment of a significant portion of our debt and initiate legal procedures for enforcement of our debts. We do not have the resources to repay overdue debt or to enable us to comply with accelerated repayment requests immediately. Our plans, including the achievement of the restructuring with all of our lenders and aligning the servicing of our debt with new repayment schedules and projected cash flows to be generated by our group in 2018 and beyond, are discussed in [Table of Contents](#) Item 5. Operating and Financial Review and Prospects [Table of Contents](#) Liquidity and Capital Resources [Table of Contents](#) Outlook for 2018 [Table of Contents](#) and note 4 to our consolidated financial statements in [Table of Contents](#) Item 18. Financial Statements. Our future is dependent on our ability to refinance or restructure our indebtedness successfully or otherwise address these matters. If we fail to do so for any reason, we would not be able to continue as a going concern and could potentially be forced to seek relief under applicable bankruptcy or insolvency procedures, in which case our shares and ADSs would lose all or a substantial amount of their value. However, given management's plans, our consolidated financial statements have been prepared on the basis that we will continue as a going concern entity, and no adjustments have been made in our consolidated financial statements relating to the recoverability and classification of the recorded value of assets, the amounts and classification of liabilities or any other adjustments that might result in any potential impact of us not being able to refinance our debt obligations as outlined in note 4 to our consolidated financial statements in [Table of Contents](#) Item 18. Financial Statements.

We face pressure on our liquidity, negatively influencing our working capital, which resulted from the acquisitions, substantial investment program, decrease in prices on commodity markets, global economic slowdown, difficulties with attracting new financing or refinancing of our debt and our need to service debt along with international sanctions against Russia and Russian state-owned banks.

Due, inter alia, to a substantial increase in our total indebtedness in 2007 and early 2008, together with a substantial decrease in prices on commodity markets, we experienced a liquidity shortage in late 2008 and early 2009 and in order to address the liquidity shortage during 2008 through 2011 obtained significant loans. Starting from the second half of 2012 and gradually worsening during 2013 and into 2014, a second phase of economic and financial difficulties unfolded. To alleviate the pressure on our liquidity, in 2012 and 2013, we refinanced and restructured a number of major loans and issued Russian ruble bonds in order to refinance our debts.

In the first half of 2014, we experienced a shortage of liquidity and difficulties with refinancing of our debt; as a result, we failed to fulfill our payment obligations in connection with the servicing of interest and the repayment of our indebtedness. We held discussions with our creditors and applied for a standstill with respect to the payment of our financial obligations or a temporary reduction in servicing the loans which was not accepted. From the second half

of 2014, the markets for our main products began to recover, and the depreciation of the ruble contributed to an increase in our operating profit and our available free cash flow for servicing our financial

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obligations. Despite of further decrease in prices on our main products during 2015 with further depreciation of the ruble we managed to maintain stable operating profit and used all earned profits for servicing our financial obligations. We resumed making partial payments of current interest to the banks and agreed extension of the grace periods and new repayment schedules with our major creditors as well as partial capitalization of interest payments and the restructuring of overdue interest and principal. In 2016, the market situation rapidly changed from quarter to quarter with coal prices rise over the second half of 2016 and correction of the steel prices in the third quarter of 2016. Positive dynamics of steel and coal prices allowed us to improve our financial position and supported us in finalizing restructuring with the majority of our creditors, including Russian state banks, bondholders and other Russian commercial banks. In December 2017, we agreed the terms of the restructuring with the majority of lenders under our \$1.0 billion pre-export facilities. Our primary objective in negotiating the debt refinancing and restructuring relates to matching our projected available free cash flows with future financial and investment payments and resetting the financial covenants to ensure a stable financial environment. We are also aiming to lengthen the maturity profile and repayment grace periods of that portion of our debt portfolio that currently remains not restructured.

For the year ended December 31, 2017, we had an operating income of RUB 57,167 million as compared to RUB 42,690 million for the year ended December 31, 2016. Net cash provided by operating activities was RUB 63,282 million for the year ended December 31, 2017 as compared to RUB 53,207 million for the year ended December 31, 2016. As of December 31, 2017, our total indebtedness was RUB 439,893 million, a decrease of RUB 5,916 million from December 31, 2016. The short-term portion of our total indebtedness was RUB 422,533 million as of December 31, 2017 as compared to RUB 434,165 million as of December 31, 2016. The working capital deficit amounted to RUB 416,686 million as of December 31, 2017 as compared to RUB 441,581 million as of December 31, 2016. Cash and cash equivalents as of December 31, 2017 were RUB 2,452 million as compared to RUB 1,689 million as of December 31, 2016. Our total liabilities exceeded total assets by RUB 244,133 million as of December 31, 2017.

We have restructured major part of our debt portfolio and optimized the capital investment program. See [Table of Contents](#) If we are unable to restructure all of our indebtedness or fail to comply with the new terms of the restructured indebtedness, our lenders may claim for accelerated repayment, which could lead to cross-default under other borrowings and have a material adverse effect on our business, financial condition, results of operations and prospects and [Table of Contents](#) We will require a significant amount of cash to fund our capital investment program. These measures, if successful, should reduce the risk of facing a liquidity shortage in the medium term as well as allow us to reduce our debt leverage over time. Our ability to refinance existing debt is limited due to difficult conditions in the domestic and international capital markets and in the banking sector, together with sanctions imposed on certain Russian banks preventing them from raising additional long-term financing on the international capital markets.

In October 2014, Moody's Investors Service downgraded our rating to Caa3 with negative outlook because of the increased risk of default under our credit facilities, high probability of a refinancing scenario and a weak coal market environment. Further, in December 2014, Moody's Investors Service added Ca-PD/LD to our rating due to litigation with VTB Bank. In March 2015, following Mechel's request, Moody's Investors Service withdrew our corporate family rating of Caa3, probability of default rating of Ca-PD/LD and long-term national scale rating of Caa2.ru. Downgrade and further absence of international rating may reduce our opportunities to raise necessary debt financing (including by accessing the debt capital markets), as well as potentially negatively impact the terms of such financing.

Any deterioration in our operating performance, including due to any worsening of prevailing economic conditions, fall in commodity prices (whether due to the cyclical nature of the industry or otherwise) and/or financial, business or other factors (including the imposition of further international sanctions against Russian companies or individuals as well as certain industries, including steel and mining sectors), many of which are beyond our control, may adversely and materially affect our cash flow, liquidity and working capital position and may result in an increase in our

working capital deficit and in our inability to meet our obligations as they fall

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due. Poor liquidity and working capital deficit could lead to debt repayments difficulties, defaults, enforcement of security and eventually insolvency. All these factors could lead to difficulties with refinancing or raising additional capital and would require further restructuring. See **Risks Relating to Our Business and Industry** We operate in cyclical industries, and any local or global downturn, whether or not primarily affecting the mining and/or steel industries, may have an adverse effect on our business, financial condition, results of operations and prospects and

Risks Relating to the Russian Federation The political and economic crisis in Ukraine as well as other politically related disagreements and allegations between Russia and other countries and sanctions imposed as a result thereof by the United States and the European Union may have a material adverse effect on our business, liquidity and financial condition, as well as the trading market for and value of our shares and ADSs. There is no guarantee that we would be successful in refinancing and restructuring our debt or in raising additional capital (particularly if we fall under international sanctions preventing us from accessing foreign capital markets and supply of our products on certain export markets), or that we would be able to do so on a timely basis or on terms which are acceptable to us. Even if we were successful, the terms of such refinancing or new capital may be detrimental to holders of ADSs and shares including due to a dilution of their interest. Any such deterioration, affect or failure could have a material adverse effect on our business, financial condition, results of operations and the trading price of our ADSs and shares.

Our failure to comply with the payment and other obligations in our credit facilities caused some of our creditors to accelerate amounts due under their loan agreements and such failure, or like failure in the future, may cause the acceleration of our other outstanding debt, which could lead to cross-default under other borrowings and have a material adverse effect on our business, financial condition, results of operations and prospects.

Most of the loan agreements under which we or our subsidiaries are borrowers contain various representations, undertakings, restrictive covenants and events of default. Furthermore, according to the terms of such agreements, certain of our actions aimed at developing our business and pursuing our strategic objectives, such as acquisitions, disposal of assets, corporate restructurings, investments into certain of our subsidiaries and others, require prior notice to or consent from the respective lenders. We have restrictions on our ability to pay dividends, incur additional indebtedness and make certain capital expenditures, as well as expand through further acquisitions and use proceeds from certain disposals.

During 2014 and 2015, VTB Bank and Sberbank decided to accelerate outstanding amounts under our credit facilities due to our payment defaults. Although we were able to settle with VTB Bank and Sberbank, such acceleration, in turn, would give our other creditors the right to trigger acceleration under their loan agreements. See **We may become subject to bankruptcy procedures, which may result in the inability of holders of our shares and ADSs to recover any of their investments.**

In 2015, we signed agreements on restructuring of our debt with our major lenders, such as VTB Bank and Gazprombank. We also signed restructuring agreements with Sberbank in February-April 2016 which granted a grace period and extended repayments of our debt as well as waived all previous defaults. In December 2016, we signed the last set of the agreements with VTB Bank which provide for extension of maturity of our credit lines until April 2022. Signing of these agreements was condition precedent to coming into effect of the similar provisions under agreements with Gazprombank and Sberbank. In April 2017, Gazprombank, VTB Bank and Sberbank confirmed the restructuring terms, including an extension of the repayment grace period until 2020 and the final maturity until 2022. See **If we are unable to restructure all of our indebtedness or fail to comply with the new terms of the restructured indebtedness, our lenders may claim for accelerated repayment, which could lead to cross-default under other borrowings and have a material adverse effect on our business, financial condition, results of operations and prospects and Item 5. Operating and Financial Review and Prospects Restructuring of financial indebtedness.**

As of December 31, 2017, we had significant amount of overdue debt and we were in breach of certain financial and non-financial covenants in several loan agreements and defaulted on our loans allowing the relevant

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creditors to claim for accelerated repayment of all amounts of outstanding at any time, however we have not received any notices from the creditors as of December 31, 2017. See Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources Restrictive Covenants, Item 5. Operating and Financial Review and Prospects Description of Certain Indebtedness, Item 10. Additional Information Material Contracts and Item 13. Defaults, Dividend Arrearages and Delinquencies.

Currently we continue to be in default under our credit facilities with international lenders (pre-export facility agreements and export credit agreements), and are negotiating refinancing and restructuring thereof. Our international lenders have not so far waived their rights in respect of or granted their consent to our breaches. We have received notification on defaults under the facilities with our international lenders, however the lenders under the export credit agreements did not claim for accelerated repayment. In December 2016, pre-export facility agreements with a syndicate of banks have matured without being repaid. In February 2017, a number of lenders under pre-export facility agreements filed 14 requests for arbitration. The 14 requests claim amounts allegedly due plus costs and such other, unspecified, relief that the arbitral tribunal may deem appropriate. See Item 8. Financial Information Litigation Debt litigation. These claims as well as the refusal of any one lender to grant or extend a waiver or amend the loan documentation, even if other lenders may have waived covenant defaults under the respective credit facilities, could result in substantially all of our indebtedness being accelerated. If our indebtedness is accelerated in full or in part, it would be very difficult in the current financing environment for us to refinance our debt or obtain additional financing, and we could lose our assets, including fixed assets and shares in our subsidiaries, if our lenders foreclose on their liens, which would adversely affect our ability to conduct our business and result in a significant decline in the value of our shares and ADSs.

Our ability to continue to comply with our financial and other loan covenants in the future and to continue to service and refinance our indebtedness will depend on our results of operations and our ability to generate cash in the future and attract new financing and refinance the existing indebtedness, which will depend on several factors, including lenders' credit decisions, limitations on the ability of Russian companies to access international capital markets as a result of a tightening of international sanctions against Russian companies and individuals and general economic, financial, competitive, legislative and other factors that are beyond our control. We cannot assure you that any breach of financial and other covenants in our loan agreements, including defects in security, will not result in new demands from our lenders for acceleration of our loan repayment obligations or related litigation, including as a result of cross-defaults. If we fail to comply with our financial and other covenants contained in any of our loan agreements, including compliance with financial ratios and other covenants, or fail to obtain prior consent of lenders for certain actions, or fail to obtain extensions or waivers in respect of any breaches of our loan agreements or amend our loan agreements, such failure would constitute an event of default under the relevant loan agreement and a cross-default under most of the others. Any event of default under our loan agreements could result in acceleration of repayment of principal and interest under the relevant loan agreement and, via cross-default provisions, under our other facilities, reduced opportunities for future borrowing, debt service obligations in excess of our ability to pay, liability for damages or inability to further develop our business and pursue our strategic objectives, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we are unable to restructure all of our indebtedness or fail to comply with the new terms of the restructured indebtedness, our lenders may claim for accelerated repayment, which could lead to cross-default under other borrowings and have a material adverse effect on our business, financial condition, results of operations and prospects.

We have a number of facilities with international lenders which we have been in non-compliance. We are negotiating restructuring of indebtedness under these agreements in order to extend the repayment schedule and final maturity as well as to decrease interest payments. If we fail to negotiate restructuring of these agreements, lenders thereunder

could claim acceleration of repayment which we may not be able to make. This could lead to cross-default under other agreements and could have a material adverse effect on our business, financial condition, results of operation and prospects. In December 2017, we entered into a lock-up agreement with a

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majority of international lenders in order to facilitate the pre-export facility restructuring. The terms of the lock-up agreement apply until May 31, 2018.

We have signed restructuring agreements with our major Russian lenders which became effective during the period from October 2015 to December 2016. See Item 5. Operating and Financial Review and Prospects Restructuring of financial indebtedness.

Our major lenders, such as Gazprombank, VTB Bank and Sberbank, required that all the loans provided to our subsidiaries be secured with the suretyship or pledge of assets of Mechel PAO. In accordance with the Joint-Stock Companies Law then in effect, such transactions exceeding 2% of the balance sheet value of the company's assets determined under the Russian accounting standards required participation and obtaining of approval from a majority of disinterested shareholders of the company; starting from January 1, 2017, the Joint-Stock Companies Law was amended and the threshold was set at 10%. Such security is an additional guarantee for our lenders which they require for restructuring of our debt. On March 4, 2016, we convoked the extraordinary general shareholders' meeting to approve a number of interested party transactions but we did not manage to obtain the required quorum to approve such transaction. Although we managed to obtain the required quorum thereafter in 2016 and 2017, we cannot predict whether we could obtain such shareholders' approval in order to secure our loans in the future or we could get a waiver from the banks for the amendment of the security structure.

During 2016, we have successfully restructured our ruble bonds, however we might need to negotiate with the bondholders extension of maturities thereof and new amortization schedules in case of liquidity shortage in the future. If we fail to agree with the bondholders on a restructuring and we will not have liquidity to finance buy-back of these bonds, payment default will occur. Payment default under any of ruble bonds may result in cross-default under all other bond issues as well as cross-default under restructured credit facilities. The bondholders also could litigate us after the restructuring and this could lead to termination of the restructuring.

If we fail to comply with the new terms and conditions, our lenders could claim acceleration of repayment which we may not be able to make and enforce the security which had been pledged to those banks. See We have a substantial amount of outstanding indebtedness with restrictive financial covenants and most shares and assets in our subsidiaries are pledged. This could further lead to cross-default under other agreements and could have a material adverse effect on our business, financial condition, results of operation and prospects.

We still have a number of facilities with international lenders to be restructured in order to extend the repayment schedule and final maturity. In February 2017, a number of lenders under pre-export facility agreements filed requests for arbitration with the London Court of International Arbitration (**LCIA**). See Item 8. Financial Information Litigation Debt litigation. These recent claims trigger an event of default and cross-default under various loan agreements and our lenders may claim for accelerated repayments. We have requested our major Russian lenders to waive cross-default provisions in this respect, however, no waivers have been granted so far and we have no clarity when, if ever, such waivers will be granted. If no waivers are granted, lenders will have a right to claim for immediate acceleration of our indebtedness. We do not have the resources to repay overdue debt or to enable us to comply with accelerated repayment requests immediately. See also Our failure to comply with the payment and other obligations in our credit facilities caused some of our creditors to accelerate amounts due under their loan agreements and such failure, or like failure in the future, may cause the acceleration of our other outstanding debt, which could lead to cross-default under other borrowings and have a material adverse effect on our business, financial condition, results of operations and prospects.

We have a substantial amount of outstanding indebtedness with restrictive financial covenants and most shares and assets in our subsidiaries are pledged.

We have a substantial amount of outstanding indebtedness, primarily consisting of debt we incurred in connection with the financing of our acquisitions of Yakutugol and Oriel Resources in 2007 and 2008, as well as

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debt we incurred to finance our investment program in recent years, including the development of the Elga coal deposit and the universal rolling mill installation, and our working capital needs which have been significant in recent years due to the depressed demand and volatile pricing for our main products. Most of this debt has restrictive financial covenants. See Item 5. Operating and Financial Review and Prospects Restrictive Covenants, Item 5. Operating and Financial Review and Prospects Description of Certain Indebtedness and Item 10. Additional Information Material Contracts. As of December 31, 2017, our consolidated total debt, including finance lease obligations, the financial instrument of VTB Capital Plc and the put option of Gazprombank, was RUB 490,241 million, of which RUB 430,743 million was short-term debt (including RUB 411,984 million with loan covenant violations, of which RUB 284,156 million was long-term debt reclassified to short-term debt due to defaults and cross-defaults under our loan agreements). Our finance costs for the year ended December 31, 2017 were RUB 47,610 million, net of the amount capitalized.

In order to secure bank financings, we have pledged shares in certain our subsidiaries, including 100%-1 share of Yakutugol, 95%+4 shares of Southern Kuzbass Coal Company, 91.66% of shares of Chelyabinsk Metallurgical Plant, 50%+2 shares of common shares of Beloretsk Metallurgical Plant, 80%+3 shares of Korshunov Mining Plant, 87.5%+3 shares of Mechel Mining, 80%-5 shares of Urals Stampings Plant, 33.33%+1 share of common shares of Izhstal, 25%+1 share of Port Posiet, 50.99% of registered capital of Elgaugol, 25% of registered capital of Mecheltrans, 100% of registered capital of Fincom-invest OOO, 25% of registered capital of Port Temryuk, 25% of registered capital of Bratsk Ferroalloy Plant, 1.99% of registered capital of MecheltransVostok OOO and 1.99% of registered capital of Elga-road OOO as of December 31, 2017. In January 2017, we pledged 5% of all issued preferred shares of Mechel. Also, property, plant and equipment and certain other assets of our subsidiaries are pledged to the lenders. As of December 31, 2017, the carrying value of property, plant and equipment, inventory and accounts receivable pledged under our loan agreements amounted to RUB 125,793 million. See note 11.1(h) to the consolidated financial statements. Should we be in payment defaults, breaches of covenants and restrictions under our financial agreements and fail to receive waivers, the security may be enforced, which could have a material adverse effect on our business, financial condition, results of operations and prospects. For a description of defaults and acceleration events, see Our failure to comply with the payment and other obligations in our credit facilities caused some of our creditors to accelerate amounts due under their loan agreements and such failure, or like failure in the future, may cause the acceleration of our other outstanding debt, which could lead to cross-default under other borrowings and have a material adverse effect on our business, financial condition, results of operations and prospects.

Our ability to make payments on our indebtedness depends upon our operating performance, which is subject to general economic and market conditions, commodity prices, and financial, business and other factors (including the maintenance or extension of international sanctions against Russian companies and individuals as well as sanctions imposed on certain industrial sectors), many of which we cannot control. See We face pressure on our liquidity, negatively influencing our working capital, which resulted from the acquisitions, substantial investment program, decrease in prices on commodity markets, global economic slowdown, difficulties with attracting new financing or refinancing of our debt and our need to service debt along with international sanctions against Russia and Russian state-owned banks.

Among other things, high levels of indebtedness, the restrictive financial covenants in our credit facilities and breaches thereof as well as default on our loans, could potentially: (1) limit our ability to raise capital through debt financing; (2) limit our flexibility to plan for, or react to, changes in the markets in which we compete; (3) disadvantage our group relative to our competitors with superior financial resources; (4) lead to a loss of assets pledged as security; (5) render us more vulnerable to general adverse economic and industry conditions; (6) require us to dedicate all or a substantial part of our cash flow to service our debt; and (7) limit or eliminate our ability to pay dividends.

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We may become subject to bankruptcy procedures, which may result in the inability of holders of our shares and ADSs to recover any of their investments.

Our future is dependent on our ability to refinance, restructure and service our indebtedness successfully. If we fail to do so for any reason, we could be forced to seek relief under applicable bankruptcy procedures, in which case our shares and ADSs may lose all or substantial amount of their value. See [Table of Contents](#) There is substantial doubt about our ability to continue as a going concern.

Our creditors, including the Federal Tax Service of the Russian Federation, may file a bankruptcy petition with a court seeking to declare us insolvent if we are unable to make payments to our creditors in excess of 300,000 rubles within three months of such payments becoming due. In most cases, for such petition to be accepted, the outstanding indebtedness must be confirmed by a separate court decision or arbitral award that has already entered into force. However, under amendments to the Federal Law No. 127-FZ On Insolvency (Bankruptcy) dated October 26, 2002 (the **Bankruptcy Law**), financial (credit) organizations, which include our major creditors, may file a petition for bankruptcy without such separate court decision. In this case, the financial organization is required to notify the debtor and its creditors in writing at least 15 days from the date of publication of the bankruptcy petition in the Unified Federal Register of Information on Facts of Business Activity of Legal Entities. In March 2015, VTB Bank published a notification of its intention to initiate bankruptcy proceedings against us and informed our main creditors of its intention to proceed with such bankruptcy petition. The restructuring documents have been signed in September 2015 and currently there is no further development regarding this issue from VTB Bank side. In April 2015, VTB Bank and VTB Capital Plc filed a claim with the High Court of Justice Queen's Bench Division Commercial Court in England seeking for injunctive relief under pre-export facility agreements with a syndicate of banks. This claim and court proceedings were put on hold until April 30, 2018. See [Item 8. Financial Information Litigation Debt litigation](#). VTB Bank and VTB Capital Plc terminated Russian court proceedings and recalled all of their Russian claims against us in October 2015, once restructuring agreements with VTB Bank became effective. If any other creditor initiates court proceedings seeking to declare us insolvent or if the bank is granted with aforementioned preliminary injunctions, it could have a material adverse effect on our prospects and on the value of our shares and ADSs and may ultimately result in the inability of holders of our shares and ADSs to recover any of their investments.

From time to time, the group's suppliers, services providers and other third parties which we may owe operating debt to may file bankruptcy claims based on the formal debt limit provided by the Bankruptcy Law, however, we settle such claims before court consideration. Nevertheless, the overall debt of our group companies is still substantial. Therefore, there is a risk that our creditors (including suppliers, services providers, etc.) may file bankruptcy petitions, and our shareholders and ADS holders may lose all or substantial part of their investment.

The Bankruptcy Law is still developing and it remains subject to varying interpretations. While the Bankruptcy Law establishes the principle of adequate protection of creditors, debtors, shareholders and other stakeholders in bankruptcy, it often fails to provide instruments for such protection that are available in other jurisdictions with more developed bankruptcy procedures. Bankruptcy proceedings in Russia are often not conducted in the best interests of shareholders or creditors. In addition, Russian courts that conduct bankruptcy proceedings may be subject to a greater degree of political interference and may employ a more formalistic, and less commercially sophisticated, approach to rendering decisions than like court in other jurisdictions. Russian insolvency proceedings in the past have shown a bias towards liquidation and not rehabilitation or restructuring.

The Bankruptcy Law provides for the following order of priority for the satisfaction of creditor claims: (i) personal injury claims; (ii) employment claims (wages and severance payments) and royalty claims under copyright agreements; and (iii) all other claims. The claims of secured creditors are satisfied in accordance with a special procedure, that is, out of the proceeds of sale of the pledged or mortgaged assets. Equity claims of shareholders or

ADSs holders may be satisfied only if any assets remain after all creditors have been paid in full.

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Therefore, there is a risk that our shareholders and ADS holders may lose all or substantial part of their investment. This risk is even more significant for ADS holders whose status in the bankruptcy proceedings is unclear.

If we fail to fulfill payment obligations under the group's lease agreements, our lessors may require the return of the leased assets, which could materially adversely affect our business, financial condition, results of operations and prospects.

Some of our group companies have entered into various lease agreements with different leasing companies for the mining equipment, trucks, railcars, etc.

Each of the lease agreements has a certain payment schedule. Starting from the second quarter of 2014, we began to delay the regular payments under several of these lease agreements. According to the Civil Code of the Russian Federation, as amended (the **Civil Code**), and the Federal Law No. 164-FZ On Financial Leasing dated October 29, 1998, as amended, a lessor is generally entitled to apply to a court for the early termination of a lease agreement if the lessee fails to make two consecutive payments under the lease agreement. The lessor is required to notify the lessee in writing and request fulfillment of its obligations under the lease agreement within a reasonable time before applying to the court.

The lease agreements we have entered into generally provide for a stricter procedure, whereby the lessor is also entitled to terminate the contract unilaterally, without applying to the court, by way of sending a notification to the lessee in case of non-payment within a specified period of time. The lessor is entitled to receive penalties in case of a delay in payment and early termination of the lease agreement due to the lessee's default. Upon termination of the lease agreement, the lessor is entitled to request the return of the leased equipment. If the lessee fails to return the equipment, the lessor is entitled to receive rental payments covering the time of the delay and compensation for damages if not covered by rental payments.

In particular, we failed to fulfill our payment (as well as certain other) obligations under the lease agreements with Sberbank Leasing AO. In 2014, Sberbank Leasing AO filed lawsuits for the recovery of the overdue amounts under the lease agreements concluded with Korshunov Mining Plant, Mechel Materials, Yakutugol, Southern Kuzbass Coal Company and Metallurgshakhtspetsstroy. In February 2015, Sberbank Leasing AO sent termination notices to the lessees under the respective lease agreements for the total amount of 4.2 billion rubles stating that unless the payments are made within 15 days from the date of the notice, the respective lease agreements shall be deemed terminated. The payments were not made, and in April 2015, Sberbank Leasing AO requested through the courts accelerated repayment of amounts due under the lease agreements as well as the return of the leased assets. During the period from December 2015 to May 2016, we signed settlement agreements with Sberbank Leasing AO which waived our previous defaults and restructured our future payment schedules. The settlement agreements became effective in 2016. We have further signed new versions of certain settlement agreements revising payment schedules which were approved by the courts in 2017.

During the period from May to August 2015, following our failure to fulfill payment obligations under the respective lease agreements, Caterpillar Financial OOO sent termination notices to the lessees (Yakutugol, Mechel Engineering, Korshunov Mining Plant, Mechel Materials, Metallurgshakhtspetsstroy, Tomusinsky Open Pit and Southern Kuzbass Coal Company). We have not settled the claims and Caterpillar Financial OOO filed lawsuits with the court against our subsidiaries and Mechel (as the guarantor under four lease agreements) seeking termination of lease agreements, withdrawal of leasing assets and recovery of debt in an aggregate amount of approximately \$5.0 million and 313.9 thousand. In July 2016, Caterpillar Financial OOO filed another lawsuit seeking recovery of debt and withdrawal of a leasing asset. In 2017, Caterpillar Financial OOO restructured part of our overdue lease payments by means of settlement agreements which were approved by the courts. Currently, we expect to sign settlement

agreements for the remainder of the debt. See Item 8. Financial Information Litigation Debt litigation.

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During 2016, we breached payment schedules with Sberbank Leasing AO, Caterpillar Financial OOO, VTB Leasing JSC and Gazprombank Leasing JSC, however we managed to substantially decrease our overdue lease payments and agreed on the repayment profile of the remaining overdue debts. As of December 31, 2017, we fully repaid the overdue lease payments to Gazprombank Leasing JSC, Sberbank Leasing AO and VTB Leasing JSC.

In the event the leased equipment is returned to the lessor, there is a risk that our operating activities (for the group companies that are lessees under the delinquent leases) will be adversely affected, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

We will require a significant amount of cash to fund our capital investment program.

Our business requires maintenance capital expenditures in order to maintain production levels adequate to meet the demand for our products, as well as other capital expenditures to implement our business strategy. We spent 5.6 billion rubles during 2017 on our capital expenditures (including 2.8 billion rubles in maintenance capital expenditures). In planning for 2018, we followed our current investment policy focusing only on those items that are either close to completion or are of major importance for our operations. Our capital investment program currently contemplates capital spending of up to 11.6 billion rubles in 2018 (including up to 5.1 billion rubles in maintenance capital expenditures). A considerable part of the planned capital expenditures relate to the renewal of mining-and-transport equipment and to the development of the Elga coal deposit. The Elga capital expenditures are planned in the amount of approximately 8.4 billion rubles to be financed from our own funds in 2018-2020. Overall, we plan to spend up to 33.4 billion rubles for the three-year period of 2018-2020 on capital investments (including up to 18.9 billion rubles in maintenance capital expenditures). See Item 4. Information on the Company Capital Investment Program.

Our ability to undertake and fund planned capital expenditures will depend on our ability to generate cash in the future and access debt financing. Lack of liquidity may jeopardize capital expenditure plans, see We face pressure on our liquidity, negatively influencing our working capital, which resulted from the acquisitions, substantial investment program, decrease in prices on commodity markets, global economic slowdown, difficulties with attracting new financing or refinancing of our debt and our need to service debt along with international sanctions against Russia and Russian state-owned banks. This, to a certain extent, is subject to general economic and market conditions, financial, competitive, legislative, regulatory and other factors (including the status of international sanctions against Russian companies and individuals as well as sanctions imposed on certain types of products in different sectors) that are beyond our control. Raising debt financing for our capital expenditures on commercially reasonable terms may be particularly challenging given our current high levels of indebtedness and restrictive covenants imposed under the loan agreements. Any deterioration in our operating performance, including due to any worsening of economic conditions, fall in commodity prices and/or financial, business or other factors, many of which are beyond our control, may adversely and materially affect our cash flow which may leave us unable to conduct our capital expenditure plans as necessary or required, which could adversely affect our operating facilities and ability to comply with applicable regulations.

Changes in the exchange rate of the ruble against the U.S. dollar and in interest rates may materially adversely affect our business, financial condition and results of operations.

Part of our sales are denominated in U.S. dollars, whereas the majority of our direct costs are incurred in rubles. In addition, we have foreign currency loans that are denominated mainly in U.S. dollars. Depreciation in real terms of the ruble against the U.S. dollar may result in a decrease in our costs relative to our export revenues assuming stable level of prices for our products. Also, depreciation in real terms of the ruble against the U.S. dollar may result in a reduction in our ability to service debt obligations denominated in foreign currencies in case of sharp decline in sales in general

and sales denominated in foreign currencies in particular. Conversely, appreciation in real terms of the ruble against the U.S. dollar may materially adversely affect our results of operations if the prices we are able to charge for our products do not increase sufficiently to compensate for the

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increase in real terms in our ruble-denominated expenditures. In 2017, the ruble appreciated in real terms against the U.S. dollar by 16.3% as compared to 2016, according to the CBR.

In an effort to protect the country's foreign currency reserves from substantial depletion, the CBR moved to a free floating exchange rate regime on November 20, 2014. In response to continuing ruble depreciation, the CBR in an unexpected, emergency meeting increased its key rate, which determines the borrowing costs for commercial banks, from 10.5% to 17% subsequently lowering the rate to 7.25% during 2015-2018. Upon restructuring, interest rates under our ruble-denominated facilities with Russian state banks are linked to the CBR key rate (plus a margin above the key rate). Should the CBR key rate increase again, or should interest rates under our existing facility agreements otherwise increase, we will face higher borrowing costs, which could have a material adverse effect on our business, cash flows, financial condition, results of operations and prospects.

Inflation could increase our costs and decrease operating margins.

In 2017, 2016 and 2015, the inflation rate in Russia was 2.5%, 5.4% and 12.9%, respectively, according to the Russian Federal State Statistics Service (**Rosstat**). The increase in inflation in 2015 may be attributed to international sanctions imposed on Russian companies and individuals, the significant fall in the ruble against the U.S. dollar and euro and high growth of prices on consumer goods and services. A record low level of inflation in Russia in 2016 and 2017 was due to the tight monetary policy of the CBR and slowing growth of prices on consumer goods and services. Inflation increases our operating costs on monetary items, which are sensitive to rise in the general price level in Russia, including fuel and energy costs, cost of production services and salaries (as under existing collective agreements wage indexation is carried out taking into account inflation). Inflation could also potentially increase the prices we can charge for our products. The impact of inflation on our operating margins depends on whether we can charge higher prices corresponding with the increase in costs. Nevertheless, there is a high risk that inflation will have an overall negative impact on our operating margins.

If limitations on the conversion of rubles into foreign currencies in Russia are imposed, this could cause us to default on our obligations.

Part of our indebtedness and part of our capital expenditures are payable in foreign currencies, including the U.S. dollar and euro. Russian legislation currently permits the conversion of ruble revenues into foreign currency without limitation. If the Russian authorities were to impose limitations on the convertibility of the ruble or other restrictions on operations with rubles and foreign currencies in the event of an economic crisis or otherwise, there may be delays or other difficulties in converting rubles into foreign currency to make a payment or delays in or restrictions on the transfer of foreign currency. This, in turn, could limit our ability to meet our payment and debt obligations, which could result in the loss of suppliers, acceleration of debt obligations and cross-defaults and, consequently, have a material adverse effect on our business, financial condition, results of operations and prospects.

Our business could be materially adversely affected if creditors of certain of our subsidiaries accelerate their debt.

If we decide to merge certain subsidiaries for operational reasons from time to time, under Russian law such mergers are considered to be a reorganization and the merged subsidiaries are required to publish the information regarding this reorganization twice: the first publication due at the beginning of the reorganization and the second to follow one month after the first publication. Russian law also provides that, for a period of 30 days after the date of latest publication, the creditors of merging subsidiaries have a right to file a claim seeking acceleration of the reorganized subsidiaries' indebtedness and demand reimbursement for applicable losses, except in cases where the creditors have adequate security or are provided with adequate security within 30 days after filing of such claim. In the event that we undertake any such merger and all or part of our subsidiaries' indebtedness is accelerated, we and such subsidiaries

may not have the ability to raise the funds necessary for repayment, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

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Russian law restrictions on depositary receipt programs limit our access to equity capital and constrain our refinancing options.

Russian companies are limited in their ability to place shares in circulation outside of Russia, including in the form of depositary receipts such as our common American Depositary Shares (**common ADSs**) and our global depositary shares representing our common shares (**GDSs**), as well as our preferred American Depositary Shares representing our preferred shares (**preferred ADSs**, and together with the common ADSs, the **ADSs**) due to Russian securities regulations. We have received permission from the Russian Federal Financial Markets Service (**FFMS**) for up to 40% of our common shares to be circulated abroad through depositary receipt programs, which was the maximum amount allowed at that time. Later we also received FFMS permission for a total of 41,627,074 preferred shares to be circulated through depositary receipt programs, representing 30% of the total number of issued preferred shares, which was the maximum amount allowed at that time. Currently, Russian securities regulations provide that no more than 25% of the total number of a Russian company's shares may be placed and circulated abroad through depositary receipt programs or otherwise. It is unclear whether the FFMS's approvals of higher amounts prior to the establishment of this lower limit will be allowed to remain in place. As of December 31, 2017, our common ADSs and GDSs together accounted for approximately 31% of our common shares, and accordingly we believe we cannot raise additional equity financing through placement of common shares in the form of depositary receipts. If the current limit is enforced Deutsche Bank Trust Company Americas (the **depositary**) may be forced to cancel some of our common ADSs and GDSs and deliver a corresponding number of the underlying common shares to holders of common ADSs or GDSs. The Russian government or its agencies may also impose other restrictions on international financings by Russian issuers.

We had in the past material weaknesses in our internal control over financial reporting, and we make no assurances that any material weaknesses will not be identified in the future.

Management identified material weaknesses in our internal control over financial reporting as defined in the Exchange Act Rule 12b-2 and Rule 1-02 of Regulation S-X that affected our financial statements for the years ended December 31, 2006, 2007, 2008, 2009, 2010, 2011, 2015 and 2016. Due to the effect of these material weaknesses, our auditors opined that we did not maintain effective internal control over financial reporting as of December 31, 2006, 2007, 2008, 2009, 2010, 2011, 2015 and 2016 under Section 404 of the Sarbanes-Oxley Act of 2002.

The material weakness that was previously disclosed as of December 31, 2016 was remediated as of December 31, 2017. See Item 15. Controls and Procedures Management's Annual Report on Internal Control over Financial Reporting and Remediation Activities and Changes in Internal Control over Financial Reporting for a description of the material weakness that was reported as a result of the company's annual assessment as of December 31, 2016 and remediation of that material weakness. We have implemented and executed our remediation plan, and as of December 31, 2017, the remediation plan activities were tested and the material weakness was considered as remediated. However, we make no assurances that no significant deficiencies or material weaknesses in our internal control over financial reporting will be identified in the future. Our failure to implement and maintain effective internal control over financial reporting could result in errors in our financial statements that could result in a restatement of financial statements, cause us to fail to meet our reporting obligations and cause investors to lose confidence in our reported financial information, leading to a decline in the market price of our shares and ADSs.

We may incur impairments to goodwill or other non-current assets which could negatively affect our future profits.

We assess, at each reporting date, whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, we estimate the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or a cash-generating unit's fair value less costs

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of disposal and its value in use. The recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, we use assumptions that include estimates regarding the discount rates, growth rates and expected changes in selling prices, sales volumes and operating costs, as well as capital expenditures and working capital requirements during the forecasted period. The estimated future cash flows expected to be generated by the asset, when the quoted market prices are not available, are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The growth rates are based on our growth forecasts, which are largely in line with industry trends. Changes in selling prices and direct costs are based on historical experience and expectations of future changes in the market. In determining fair value less costs of disposal, recent market transactions are taken into account.

We base our impairment calculation on detailed budgets and forecast calculations, which are prepared separately for each of our group's cash-generating units to which the individual assets are allocated. These budgets and forecast calculations generally cover a period of five years. A long-term growth rate is calculated and applied to project future cash flows after the fifth year.

For a cash-generating unit involved in mining activity future cash flows include estimates of recoverable minerals that will be obtained from proved and probable reserves, mineral prices (considering current and historical prices, price trends and other related factors), production levels, capital and reclamation costs, all based on the life of mine models prepared by our engineers.

Impairment losses of continuing operations are recognized in the consolidated statement of profit (loss) and other comprehensive income (loss) in expense categories consistent with the function of the impaired asset.

For assets excluding goodwill, an assessment is made at each reporting date to determine whether there is an indication that previously recognized impairment losses no longer exist or have decreased. If such indication exists, we estimate the asset's or the cash-generating unit's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the consolidated statement of profit (loss) and other comprehensive income (loss) unless the asset is carried at a revalued amount, in which case, the reversal is treated as a revaluation increase.

Goodwill is tested for impairment annually as of December 31 and when circumstances indicate that the carrying value may be impaired.

Impairment is determined for goodwill by assessing the recoverable amount of each cash-generating unit (or group of cash-generating units) to which the goodwill relates. When the recoverable amount of the cash-generating unit is less than its carrying amount, an impairment loss is recognized. Impairment losses relating to goodwill cannot be reversed in future periods.

The amount of goodwill on our balance sheet as of December 31, 2017 that is subject to impairment analysis in the future is RUB 18,331 million or 6% of our total assets. This amount includes goodwill of Yakutugol, Southern Kuzbass Power Plant, Kuzbass Power Sales Company and Port Posiet of RUB 13,399 million, RUB 2,382 million,

RUB 1,026 million and RUB 756 million, respectively, as of December 31, 2017. See note 18 to the consolidated financial statements.

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Based on the results of the impairment analysis of goodwill we performed as of December 31, 2017, no impairment loss was recognized. According to the results of the impairment analysis of non-current assets as of December 31, 2017, impairment loss of RUB 6,081 million was recognized. See note 18 to the consolidated financial statements.

Based on the results of the impairment analysis of goodwill we performed as of December 31, 2016, impairment loss of RUB 2,930 million was recognized. According to the results of the impairment analysis of non-current assets as of December 31, 2016, impairment loss of RUB 2,272 million was recognized. See note 18 to the consolidated financial statements.

Based on the results of the impairment analysis of goodwill we performed as of December 31, 2015, impairment loss of RUB 1,444 million was recognized. According to the results of the impairment analysis of non-current assets as of December 31, 2015, impairment loss of RUB 5,983 million was recognized. Based on comparison of carrying value and recoverable value as of December 31, 2015, excess of recoverable value over carrying value was identified therefore reversal of previously recorded impairment loss as of December 31, 2014 was recognized in the amount of RUB 5,966 million.

We continue to monitor relevant circumstances, including consumer levels, general economic conditions and market prices for our products, and the potential impact that such circumstances might have on the valuation of our goodwill and non-current assets. It is possible that changes in such circumstances, or in the numerous variables associated with our judgments, assumptions and estimates made in assessing the appropriate valuation of goodwill and recoverable value of non-financial assets, could in the future require us to further reduce our goodwill and non-financial assets and record related non-cash impairment charges. If we are required to record additional impairment charges, this could have a material adverse impact on our results of operations or financial position.

Given the competition for qualified accounting personnel in Russia, we may be unable to retain our key accounting staff, which could disrupt our ability to timely and accurately report IFRS financial information.

Our subsidiaries maintain their books and records in local currencies and prepare accounting reports in accordance with local accounting principles and practices. In particular, each of our Russian subsidiaries maintains its books in rubles and prepares separate unconsolidated financial statements in accordance with the Russian accounting standards. For every reporting period, we translate, adjust and combine these Russian statutory financial statements to prepare consolidated financial statements in accordance with IFRS. This is a time-consuming task requiring us to have accounting personnel experienced in internationally accepted accounting standards. We believe there is a shortage in Russia of experienced accounting personnel with knowledge of internationally accepted accounting standards. Moreover, there is high demand for such personnel as many Russian companies prepare financial statements on the basis of internationally accepted accounting standards. Such competition may make it difficult for us to hire and retain such personnel, and our accounting staff may have high turnover.

Risks Relating to Our Business and Industry

We operate in cyclical industries, and any local or global downturn, whether or not primarily affecting the mining and/or steel industries, may have an adverse effect on our business, financial condition, results of operations and prospects.

Our mining segment sells coal (metallurgical and steam), iron ore concentrate, coke and chemical products. These commodities are traded in markets throughout the world and are influenced by various factors beyond our control, such as global economic cycles and economic growth rates. Prices of these products have varied significantly in the past and could vary significantly in the future. For example, in 2017, coal prices were highly volatile. According to

MMI, hard coking coal spot prices fluctuated in a wide range of \$142-285 per tonne (FOB Australia).

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Our steel segment sells steel products, including semi-finished products, long products of a wide range of steel grades, carbon and stainless flat products, wire products, stampings and forgings and others, as well as ferrosilicon. Ferrosilicon is primarily used in the manufacture of steel and its market demand generally follows the cycles of the steel industry. The steel industry is highly cyclical in nature because the industries in which steel customers operate are subject to changes in general economic conditions. The demand for steel products thus generally correlates to macroeconomic fluctuations in the economies in which steel producers sell products, as well as in the global economy. The prices of steel products are influenced by many factors, including demand, worldwide production capacity, capacity-utilization rates, raw materials costs, exchange rates, trade barriers and improvements in steel-making processes. Steel products prices have experienced, and in the future may experience, significant fluctuations as a result of these and other factors, many of which are beyond our control.

Our power segment generates and supplies power resources. Power demand in Russia depends on its consumption by the industrial sector. In Russia, the steel and mining industries are major consumers of power and the level of production of steel and mining companies impact demand for power. Market demand for the power produced by our power segment is affected by many of the same factors and cycles that affect our mining and metals businesses.

As a result of the global economic crisis and the subsequent global economic slowdown, the demand and prices for our products sharply declined. The continuing stagnation of the economy of the European region, the 2012-2017 economic slowdowns in the Asia region, primarily in China, as well as the existing uncertainty as to global economic growth in the near future and international sanctions against Russia and Russian individuals or businesses may have adverse consequences for our customers and our business as a whole. See Risks Relating to the Russian Federation. The political and economic crisis in Ukraine as well as other politically related disagreements and allegations between Russia and other countries and sanctions imposed as a result thereof by the United States and the European Union may have a material adverse effect on our business, liquidity and financial condition, as well as the trading market for and value of our shares and ADSs.

Prices for our products, including coal, iron ore, metals, ferrosilicon and power, as well as the prices of coal, iron ore, ferroalloys, power and natural gas and other commodities and materials we purchase from third parties for the production of our products, fluctuate substantially over relatively short periods of time and expose us to commodity price risk. We do not use options, derivatives or swaps to manage commodity price risk. We use our vertically integrated business model and intersegment sales, as well as short-term and long-term purchase and sales contracts with third party suppliers and customers, to manage such risk. In addition, the length and pricing terms of our sales contracts on certain types of products are affected and can be regulated by orders issued by Russian antimonopoly authorities. In particular, pursuant to a directive issued to us by the Russian Federal Antimonopoly Service (FAS) in August 2008, we entered into long-term contracts for supply of certain grades of our coking coal with a formula of price calculation and with fixed volumes for the entire period of the contract. See Antimonopoly regulation could lead to sanctions with respect to the subsidiaries we have acquired or established or our prices, sales volumes and business practices. Terms of sales of other types of our products may also be affected by regulations of the authorities. We cannot assure you that our strategies and contracting practices will be successful in managing our pricing risk or that they will not result in liabilities. If our strategies to manage commodity price risk and the impact of business cycles and fluctuations in demand are not successful, it could have a material adverse effect on our business, financial condition, results of operations and prospects.

The steel and mining industries are highly competitive, and we may not be able to compete successfully.

We face competition from Russian and international steel and mining companies. Consolidation in the steel and mining sectors globally has led to the creation of several large producers, some of which have greater financial resources and more modern facilities than our group. We also face price-based competition from producers in

emerging market countries, including, in particular, Poland and Columbia (in the export of raw materials for metallurgy) and China, Ukraine, Belarus, Turkey and Kazakhstan (in the export of semi-finished

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products and rolled products). Increased competition could result in more competitive pricing and reduce our operating margins.

Our competitiveness is based in part on our operations in Russia having a lower cost of production than competitors in higher-cost locations. We have been facing a consistent upward trend in the past several years in production costs, particularly with respect to wages and transportation. For example, our rail transportation costs increased consistently during the last three years with the rail tariff increases of 10.0% in 2015, 9.0% in 2016 and 6.08% in 2017. See A limited capacity of the railway infrastructure and an increase in railway tariffs expose us to uncertainties regarding transportation costs of raw materials and steel products, Increasing costs of electricity, natural gas and labor could materially adversely affect our operating margins and Inflation could increase our costs and decrease operating margins. If these production costs continue to increase in the jurisdictions in which we operate, our competitive advantage will be diminished, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Changes in our estimates of reserves or failure to implement mine development plans could result in lower than expected revenues, higher than expected costs or decreased operating margins.

We base our reserve information on engineering, economic and geological data which is assembled, analyzed and reviewed by our staff, which includes various engineers and geologists, annually and which is reviewed by independent mining engineers as of the acquisition dates as part of business combinations. The reserve estimates as to both quantity and quality are periodically updated to reflect production from reserves and new drilling, engineering or other data received. There are numerous uncertainties inherent in estimating quantities and qualities and the costs to mine recoverable reserves, including many factors beyond our control. Estimates of economically recoverable reserves and net cash flows necessarily depend upon a number of variable factors and assumptions, such as geological and mining conditions which may not be fully identified by available exploration data or which may differ from our experience in current operations, projected rates of production in the future, historical production from the area compared with production from other similar producing areas, the assumed effects of regulation and taxes by governmental agencies and assumptions concerning prices, operating costs, mining technology improvements, mineral extraction and excise tax, development costs and reclamation costs, all of which may vary considerably from actual results. In addition, it may take many years from the initial phase of drilling before production is possible. During that time, the economic feasibility of exploiting a discovery may change as a result of changes in the market price of the relevant commodity. Mine development plans may have to be revised due to geological and mining conditions and other factors described above, as well as due to shortages in capital funding. Our planned development projects also may not result in significant additional reserves and we may not have continuing success developing new mines or expanding existing mines beyond our existing reserves.

The financial performance of our mining segment depends substantially on our ability to mine coal reserves that have the geological characteristics that enable them to be mined at competitive costs and to meet the quality needed by our customers. Actual tonnage recovered from identified reserve areas or properties and revenues and expenditures with respect to our reserves may vary materially from estimates. Replacement reserves may not be available when required or, if available, may not be capable of being mined at costs comparable to those characteristic of the depleting mines. Our ability to obtain other reserves through acquisitions in the future could be limited by restrictions under our existing or future loan agreements, competition from other mining companies for attractive properties, the lack of suitable acquisition candidates or the inability to acquire mining properties on commercially reasonable terms. Furthermore, we may not be able to mine all of our reserves as profitably as we do at our current operations due to increases in wages, power and fuel prices and other factors.

Therefore, changes in our estimates of reserves or failure to implement mine development plans could result in lower than expected revenues, higher than expected costs or decreased operating margins.

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The development of the Elga coal deposit is subject to certain risks due to the substantial amount of capital costs involved in developing the required infrastructure.

The risks associated with the development of the Elga coal deposit have the potential to impact the project's legal or economic viability. Key risks that have been identified include the following: (1) the early termination, suspension or restriction of the right of subsoil use of the Elga coal deposit in case of violation of the requirements of the deposit development technical plan; (2) the project requires significant capital expenditures to develop the required production and washing facilities and infrastructure, and increases in planned capital and operating costs could make the project uneconomical because of the project's sensitivity to these costs; (3) the economic viability of the project is dependent upon the full use of the rail line; (4) the project is very sensitive to market prices for coal because of the high initial capital costs; and (5) the insufficient capacity of ports in the Russian Far East where the Elga deposit is located may limit the distribution of coal mined at the Elga deposit. In addition, capital expenditures for the rail line were not considered in the calculation of reserves estimates as we do not plan to use the rail line solely for delivery of coal from the Elga deposit. The realization of any of these risks could have a material adverse effect on our business, financial condition, results of operations and prospects. While we have already invested approximately 75.3 billion rubles in the development of the Elga coal deposit (out of which approximately 64.4 billion rubles was invested in the construction of the rail line), its further development requires a substantial amount of investment. Based on the expected financial capabilities of the group in view of the current and projected market conditions for our main products, we plan to invest in Elga from our own funds approximately 8.4 billion rubles in 2018-2020. In 2013 and 2014, our subsidiary Elgaugol and State Corporation Bank for Development and Foreign Economic Affairs (Vnesheconombank) (**Vnesheconombank**) signed a \$150.0 million bridge loan agreement and a \$2.5 billion main project financing loan agreements for the development of the Elga coal deposit. Disbursement under the main project financing loan agreements was subject to fulfillment of conditions precedent. Elgaugol has not fulfilled these conditions and Vnesheconombank has suspended and subsequently terminated the financing. In September 2017, our debt obligations in a total amount of approximately \$183.1 million were refinanced by Vnesheconombank.

Successful implementation of our strategy to expand our special steel long products sales and coal sales depends on our ability to increase our export sales of these products.

Our strategy to expand our special steel long products sales is dependent on our ability to increase our exports of these products to other countries. Likewise, our strategy to increase our sales of coal, particularly high-grade coking coal and PCI, is substantially dependent on our ability to increase our production and exports of these products through ports in the Russian Far East to other countries, particularly Japan, China, South Korea and other Pacific Rim countries. We face a number of obstacles to this strategy, including oversupply and low demand, trade barriers and sales and distribution challenges, as well as restrictions imposed by antimonopoly legislation. See Antimonopoly regulation could lead to sanctions with respect to the subsidiaries we have acquired or established or our prices, sales volumes and business practices.

Currently, key ports in the Russian Far East have limited cargo-handling capacity, lack adequate port facilities and have old and worn-out equipment. In particular, the limited capacity of the railways connecting to these ports is a critical impediment to the further development of port infrastructure and the entire transportation system in the Russian Far East. Increasing the capacity of the ports in the Russian Far East is one of the key issues identified in the Transportation Strategy of the Russian Federation. Existing railway sections must be reconstructed, the logistics structure improved and the actions of the cargo owners, the ports management and Russian Railways, an open joint-stock company wholly owned by the Russian government, must be better coordinated. In addition, the shortage of the locomotive fleet of Russian Railways due to its worn-out state and frequent breakdowns, as well as major track repairs by Russian Railways in the summer months result in restriction on cargo volumes and increase in delivery time. Slowdown in train movements in the winter months has a negative impact on the state of bulk cargo as freezing

occurs due to low temperatures which further reduces the rate of discharge in ports and leads to congestion of railcars in the railway network.

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In particular, the total current annual capacity of the Baikal-Amur Mainline to which our Elga deposit is connected by our private rail line, was increased to 23 million tonnes in 2016 and upon implementation of a set of actions set forth in the Federal Target Program Development of Transport System of Russia (2010-2020) is expected to increase up to 33 million tonnes per year by 2019. However, in order to comply with the general declared volumes for cargo transportation on the Baikal-Amur Mainline, its capacity will need to be further expanded to meet, among others, our needs when Elga Open Pit reaches its full planned annual production capacity of 28.2 million tonnes of saleable coal in 2027. In addition, Russian Railways increased the capacity of the Komsomolsk-on-Amur-to-Sovetskaya Gavan segment, which connects the Baikal-Amur Mainline to Port Vanino, to 42.3 million tonnes in 2016. However, this increase may not be sufficient as other cargo shippers may also substantially increase their cargo volumes on the Baikal-Amur and Trans-Siberian Mainlines and further in the direction from Komsomolsk-on-Amur to Sovetskaya Gavan transportation hub. There could be no assurance that the development projects by Russian Railways will proceed according to current plans, particularly in light of international sanctions against Russian companies and individuals. In addition, there is acute competition among Russian coal exporters for existing port capacity. In light of this shortage, Russian coal producers have endeavored to acquire ports or separate terminals to ensure the export of their products.

Our ability to increase coking coal export volumes is also limited by requirements to first satisfy Russian domestic coal demand, pursuant to a FAS directive issued to us in August 2008. See Antimonopoly regulation could lead to sanctions with respect to the subsidiaries we have acquired or established or our prices, sales volumes and business practices. Failure to successfully manage the obstacles and tasks involved in the implementation of our export sales strategy could have a material adverse effect on our business, financial condition, results of operations and prospects.

In the event the title to the shares of any company we acquired is successfully challenged, we risk losing our ownership interest in that company or its assets.

Almost all of our Russian assets consist of companies formed during the course of Russian privatizations in the 1990s and early 2000s and generally we acquired shares in these companies from third parties after their respective privatizations. Given that Russian privatization legislation is vague, many privatizations are vulnerable to challenge. The Russian statute of limitations for challenging privatization transactions is generally three years since the date when performance of the transaction began. If a person presenting the claim was not a party to the transaction, the statute of limitations runs from the date when such person found out or should have found out that performance of the transaction was initiated. The statute of limitations generally cannot exceed 10 years from the commencement of performance of the transaction, although recent court practice suggests this limit does not apply if a claimant was not aware of a violation and if it is determined that, in accordance with general principles of justice, the statute of limitations concept cannot be otherwise relied on to allow the legalization of unlawfully acquired property. As noted above, most of our subsidiaries were privatized more than 10 years ago. In the event that any title to, or our ownership stakes in, any of the privatized companies acquired by us is subject to challenge as having been improperly privatized and we are unable to defeat this claim, we risk losing our ownership interest in the company or its assets, which could materially adversely affect our business, financial condition, results of operations and prospects.

In addition, under Russian law transactions in shares may be invalidated on many grounds, including a sale of shares by a person without the right to dispose of such shares, breach of interested party and/or major transaction rules and/or the terms of transaction approvals issued by governmental authorities, or failure to register the share transfer in the securities register. As a result, defects in earlier transactions with shares of our subsidiaries (where such shares were acquired from third parties) may cause our title to such shares to be subject to challenge.

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Our business could be adversely affected if we fail to obtain or extend necessary subsoil licenses and permits or fail to comply with the terms of our subsoil licenses and permits.

Our business depends on the continuing validity of our subsoil licenses and the issuance of new and extended subsoil licenses and our compliance with the terms thereof. In particular, in estimating our reserves, we have assumed that we will be able to renew our Russian subsoil licenses as and when necessary in the ordinary course of business so that we will be able to exploit the resources under such licenses for the operational life of the relevant subsoil plot. See Item 4. Information on the Company Regulatory Matters Subsoil Licensing in Russia Extension of licenses and Mining Segment Mineral reserves. However, license extension is subject to the licensee being in compliance with the terms of the license. Our experience with license extensions and publicly available information about current market practice and available court practice suggest that regulatory authorities tend to focus on such terms of the license as production levels, operational milestones and license payments, which are considered to be material terms of the license. Nevertheless, there is no assurance that this approach will be consistently applied by the regulatory authorities and the courts and that there will be no changes to this approach in the future. Regulatory authorities exercise considerable discretion in the timing of license issuance, extension of licenses and monitoring licensees' compliance with license terms. Subsoil licenses and related agreements typically contain certain environmental, safety and production commitments. See Item 4. Information on the Company Regulatory Matters Subsoil Licensing in Russia Maintenance and termination of licenses. If regulatory authorities determine that we have violated the material terms of our licenses, it could lead to rejection in license extension or suspension or termination of our subsoil licenses, and to administrative and civil liability. In addition, requirements imposed by relevant authorities may be costly to implement and result in delays in production. Our subsoil licenses expire on dates falling in 2020 through 2037. See the tables setting forth expiry dates of our Russian subsoil licenses in Item 4. Information on the Company Mining Segment and reserves information. Accordingly, these factors may seriously impair our ability to operate our business and realize our reserves which could have a material adverse effect on our business, financial condition, results of operations and prospects.

We are currently in compliance with the material terms of our Russian subsoil licenses, except for the following. We failed to commence commercial coal production at the Raspadsk license area (part of Olzherassky Open Pit) in 2009 as required by the license due to unfavorable mine economics, but expect to commence such production in the fourth quarter of 2018 provided coal prices recover sufficiently. In addition, we commenced preparation for the commercial development of the Yerunakovsk-1, Yerunakovsk-2 and Yerunakovsk-3 license areas, but failed to commence commercial production at these license areas in 2011 as required by the licenses due to unfavorable mine economics. As a result, in April 2017, the subsoil use right for the Yerunakovsk-2 license area was early terminated by Rosnedra. Moreover, we cannot fully develop the deposit at the Yerunakovsk-3 license area due to the presence of a third-party sludge pond in this area. Furthermore, we failed to commence commercial coal production at the Olzherassk license area (Olzherasskaya-Glubokaya Underground) in 2012 due to unfavorable mine economics and the significant capital investments required to develop this license area. In addition, we do not meet the deadlines of preparation for the commercial development of the Pionerskoye and the Sivaglinskoye iron ore deposits due to lack of financing. The Yerunakovsk-1, Yerunakovsk-3 and Olzherassk (Olzherasskaya-Glubokaya Underground) license areas are not counted for the purposes of our coal reserves.

Increasing costs of electricity, natural gas and labor could materially adversely affect our operating margins.

In 2017, our Russian operations purchased through Mechel Energo approximately 3.1 billion kilowatt-hours (**kWh**) of electricity at a total cost of 9.8 billion rubles, implying an average cost of 2.7 rubles per kWh. According to the Ministry of Economic Development of the Russian Federation, the average increase in market prices in the wholesale electricity market was 10.5% in 2017, and is expected to be 4.0% in 2018. Further price increases for electricity may also occur in the future due to the increase in fuel prices.

Our Russian operations also purchase significant amounts of natural gas, primarily for the production of power resources at our own co-generation facilities, from Novatek PAO (**Novatek**), Russia's largest

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independent producer of natural gas, Rosneft Oil Company (**Rosneft**), the leader of Russia's petroleum industry, and Gazprom PAO (**Gazprom**), the government-controlled dominant gas producer and the owner of the unified gas supply system of Russia. Domestic natural gas prices are regulated by the Russian government. In 2017, we purchased approximately 1.8 billion cubic meters of gas at a total cost of approximately 7.1 billion rubles. Russian domestic natural gas prices are significantly below Western European levels, which provides us with a cost advantage over our competitors, an advantage which may diminish as Russian domestic gas prices approach Western European levels. Starting from July 1, 2017, the FAS set wholesale prices of gas produced by Gazprom for domestic consumers on the territory of the Russian Federation, except for households, in the range of 2,489 rubles to 5,097 rubles as compared to prices set for the previous period which were set starting from July 1, 2015 in the range of 2,395 rubles to 4,906 rubles per thousand cubic meters, depending on the region of the Russian Federation where the gas is purchased.

Following raw materials used in the production process and energy-related costs, our labor costs are the next most significant operational cost. Labor costs in Russia have historically been significantly lower than those in the more developed market economies of North America and Western Europe for similarly skilled employees. According to Rosstat, the average wage in the Russian Federation has decreased by 9.0% in 2015. In 2016 and 2017, the average wage has increased by 0.8% and 3.4%, respectively, according to Rosstat. Labor costs in Russia are indexed to and adjusted for inflation, which means that in the future labor costs may rise and our advantage with respect to our competitors with foreign operations that have historically had to pay higher average wages than those paid in Russia may be reduced.

Higher costs of electricity, natural gas and labor could negatively impact our operating margins, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

A limited capacity of the railway infrastructure and an increase in railway tariffs expose us to uncertainties regarding transportation costs of raw materials and steel products.

Railway transportation is our principal means of transporting raw materials and steel products to our facilities and to customers in Russia and abroad. The Russian rail system is controlled by Russian Railways, which is a state-sanctioned monopoly responsible for the management of all Russian railroads. The Russian government sets domestic rail freight prices and the terms of transportation, including the terms related to the type of rolling stock to be used for transportation of certain types of cargo and the estimated minimum tonnage for the purposes of determining the applicable tariff. These rail freight prices are subject to annual adjustment based on, among other factors, inflation and the funding requirements of Russian Railways' capital investment program, which is in turn affected by the acute need to upgrade track infrastructure and passenger- and cargo-handling facilities.

The most significant railcar owners are Freight One JSC, Federal Freight JSC, NefteTransService, Globaltrans and Freight Company Novotrans. Our cargoes are currently transported in the railcars owned by our subsidiary Mecheltrans or third party railcar owners, mainly to transport coal products and iron ore concentrate. Mecheltrans works with third party railcar owners to arrange for transportation and forwarding cargoes with their railcars. In 2017, our freight volume transported by third party railcar owners amounted to 23.3 million tonnes, for which we paid 10.5 billion rubles.

In 2017, railway tariffs were indexed by 6.08%. Starting from January 30, 2018, railway tariffs have increased by an additional 5.4%. Starting from January 29, 2015, railway export tariffs for all goods were increased by 13.4%, except for certain grades of coal and middlings for which additional indexation amounted to 1.3%. Starting from January 29, 2017, railway export tariffs were reduced from 13.4% to 10.0%. Along with the growth of tariff levels, a disruption in the transportation of our raw materials and products may occur. In 2016, due to the ban to increase the service life of railcars, the open car fleet of Russian Railways decreased sharply while traffic volumes remained unchanged. In the

summer of 2017, the shortage of railcars increased as a result of scheduled track repairs. The shortage of the rolling stock led to a significant increase in prices of rolling stock

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operators' services and a reduction in volume of transported cargo, including our cargo. All of the above factors may persist in the future and negatively impact our operating margins, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

We face certain trade restrictions in the export of ferrosilicon to the European Union.

In February 2008, an antidumping duty in the amount of 17.8% was imposed on exports to the European Union of ferrosilicon produced by our subsidiary Bratsk Ferroalloy Plant for a period of five years. In February 2013, the European Commission initiated an expiry review of the antidumping measures applicable to imports of ferrosilicon. In April 2014, the antidumping duty was extended for another five years. We may face additional antidumping duties and other trade restrictions in the European Union, the United States and other markets in the future. See Item 4. Information on the Company - Steel Segment - Trade restrictions.

We benefit from Russia's tariffs and duties on imported steel, many of which have been reduced upon Russia's WTO membership and may be eliminated in the future.

Russia has in place import tariffs with respect to certain imported steel products. These tariffs generally amount to 5% of the value of the imports. Almost all of our sales of steel products in Russia were protected by these import tariffs in 2017. The Republic of Belarus, the Republic of Kazakhstan and the Russian Federation entered into a Customs Union and implemented a Common Customs Tariff, which came into force on January 1, 2010, reducing import duties on stainless rolled products from 15% to 5%. Further, the Republic of Belarus, the Republic of Kazakhstan and the Russian Federation established the Eurasian Economic Union which was enlarged in 2015 to include the Republic of Armenia and the Kyrgyz Republic. Creation of the Customs Union, as well as other actions and decisions of the Russian authorities in respect of tariffs and duties, can lead to further reduction of import duties.

On November 20, 2013, the Eurasian Economic Commission initiated an antidumping investigation against imports of steel bars originating in Ukraine. In March 2016, the investigation was completed resulting in the imposition of antidumping duties for a period of five years. Therefore, we benefit from protection of the Eurasian Economic Union's market from low-priced import of steel bars.

Upon Russia's entry into the World Trade Organization (**WTO**), the import tariffs and duties of Russia were reduced or eliminated, depending on the type of steel products. In particular, according to the WTO accession terms Russian import duties on most types of steel products have been reduced to 5%, causing increased competition in the Russian steel market from foreign producers and exporters.

Our exports to the European Union are subject to REACH regulations.

Chemical substances contained in some of our products, as well as by-products and waste, which we export to or produce in the European Union are subject to regulation (EC) No 1907/2006 on registration, evaluation, authorization and restrictions of use of chemicals (**REACH**). Under REACH, we must provide a registration dossier for such substances to the European Chemicals Agency (**ECHA**). In addition, we must provide the information about the registered substances usage and utilization to the competent authorities of the EU Member States and downstream users upon request. We believe that we are in compliance with current REACH requirements and we will have to maintain certain resources to ensure compliance with further developing REACH requirements.

REACH provides for a special authorization regime for substances of high concern, including those that are identified from scientific evidence as causing probable serious effects to humans or the environment on a case-by-case basis. To obtain authorization, a manufacturer of substances of high concern is generally required to demonstrate that the risk

from the use of the substance is adequately controlled. All substances under the authorization regime are subject to restrictions with respect to manufacture, placing on the market or use. The

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European Commission may amend or withdraw the authorization, even one given for adequate control, if suitable substitutes have become available. Currently, none of our products contain substances which may be subject to the authorization regime. There is no assurance that our products will not be subject to further restrictions or bans if any substance of high concern is detected in our products in excess of statutory thresholds, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

The European Commission amends the REACH regulation on an ongoing basis. Compliance with changes may lead to increased costs, modifications in operating practices and/or further restrictions affecting our products. Any such changes and/or modifications could have a material adverse effect on our business, financial condition, results of operations and prospects.

We are subject to mining risks.

Our operations, like those of other mining companies, are subject to all of the hazards and risks normally associated with the exploration, development and production of natural resources, any of which could result in production shortfalls or damage to persons or property.

In particular, hazards associated with our open pit mining operations include, but are not limited to: (1) flooding of the open pit; (2) collapses of the open pit wall; (3) accidents associated with the operation of large open pit mining and rock transportation equipment; (4) accidents associated with the preparation and ignition of large-scale open pit blasting operations; (5) deterioration of production quality due to weather; and (6) hazards associated with the disposal of mineralized waste water, such as groundwater and waterway contamination.

Hazards associated with our underground mining operations include but are not limited to: (1) underground fires and explosions, including those caused by flammable gas; (2) cave-ins or ground falls; (3) emissions of gases and toxic chemicals; (4) flooding; (5) sinkhole formation and ground subsidence; and (6) other accidents and conditions resulting from drilling, blasting and removing and processing material from an underground mine, including due to human error.

We are at risk of experiencing any and all of these hazards. The occurrence of such hazards could delay production, increase production costs, result in injury to persons or death, and damage to property, as well as liability for us. For example, in 2008, there were two accidents at V.I. Lenina Underground which involved multiple casualties, and one of the accidents resulted in five fatalities. In 2010 through 2012, there were a number of occasions of self-heating and spontaneous ignition of coal as well as an increase of coal dust levels, each of which resulted in the temporary suspension of mining operations at the longwalls of Sibirginskaya Underground, V.I. Lenina Underground and Olzherasskaya-Novaya Underground. There were no casualties involved in any of these occasions. In 2013-2017, there were also a number of occasions which caused the temporary suspension of mining operations, but had no significant effect on our business. We implemented measures to cure the causes of these occasions and we are implementing measures aimed at preventing accidents and occasions in the future and we are cooperating with the competent governmental authorities, in particular, the Russian Federal Service for Ecological, Technological and Nuclear Supervision (**Rostekhnadzor**).

The risk of occurrence of these hazards is also exacerbated by the significant level of depreciation of the equipment of our mining enterprises. We are conducting a program of phased replacement and refurbishment of obsolete equipment in order to meet safety requirements at our most hazardous facilities.

Abnormal weather conditions and natural hazards could negatively impact our business.

Our production facilities are located in different climate and weather conditions, and abnormal weather changes and natural hazards could affect their operations. Interruptions in electricity supply and transport communication could lead to delays in deliveries of raw materials to our production facilities and finished products to consumers, as well as a suspension of production. For example, in July 2017, about 50 meters long

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wash-out of railway track on the Ulak-Elga rail line occurred as a result of heavy rains. Coal transportation from the Elga deposit was interrupted for 9 days until the full restoration of the railway. In August 2017, due to the typhoon Noru which came to Primorsky Krai, there was a power outage, wash-out of roads and a railway track towards Port Posiet, as a result all loading and unloading operations in the port were suspended for 10 days. The railway repair and restoration works lasted approximately two months, during which the transportation of goods to Port Posiet was limited. In addition, the existence of abnormally low temperatures for a long period of time may limit the work of the port infrastructure, crane equipment and mining-and-transport equipment. The negative impact of such abnormal or extreme climate and weather conditions may have an adverse effect on our business, financial condition, results of operations and prospects.

More stringent environmental laws and regulations or more stringent enforcement or findings that we have violated environmental laws and regulations could result in higher compliance costs and significant fines and penalties, cleanup costs and compensatory damages, or require significant capital investment, or even result in the suspension of our operations, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our operations and properties are subject to environmental laws and regulations in the jurisdictions in which we operate. For instance, our operations generate large amounts of pollutants and waste, some of which are hazardous, such as benzapiren, sulfur oxide, sulfuric acid, nitrogen ammonium, sulfates, nitrites and phenicols. Some of our operations result in the creation of sludges, including sludges containing base elements such as chromium, copper, nickel, mercury and zinc. The creation, storage and disposal of such hazardous waste is subject to environmental regulations, including the requirement to perform decontamination and reclamation, such as cleaning up highly hazardous waste oil and iron slag. In addition, pollution risks and related cleanup costs are often impossible to assess unless environmental audits have been performed and the extent of liability under environmental and civil laws is clearly determinable. Furthermore, new and more stringent regulations have been introduced in a number of countries in response to the impacts of climate change. See Increased regulations associated with climate change and greenhouse gas emissions may give rise to increased costs and may adversely impact our business and markets.

Environmental legislation in Russia is generally weaker and less stringently enforced than in the European Union or the United States. However, recent Russian government initiatives indicate that Russia will introduce new water, air and soil quality standards and increase its monitoring and fines for non-compliance with environmental rules, and environmental concerns are increasingly being voiced at the local level. For example, Resolution No. 1029 of the Government of the Russian Federation dated September 28, 2015 On approval of criteria for attribution of objects having a negative impact on the environment to objects of I, II, III and IV category, sets criteria for the classification of objects that have a negative impact on the environment into the four categories. The first category includes objects that have a significant negative impact on the environment and relate to fields of application of the best available technology and the fourth category includes objects that have minimal environmental impact. Most of our production facilities are attributed to the first category of objects that have a negative impact on the environment.

Based on the current regulatory environment in Russia and elsewhere where we conduct our operations, as of December 31, 2017, we have not created any reserves for environmental liabilities and compliance costs, other than an accrual in the amount of RUB 3,992 million for rehabilitation provision. Any change in this regulatory environment could result in actual costs and liabilities for which we have not provided. We estimated the total amount of capital investments to address environmental concerns at our various subsidiaries at RUB 598 million as of December 31, 2017. These amounts are not accrued in the consolidated financial statements until actual capital investments are made. See note 27 to the consolidated financial statements.

In the course, or as a result, of an environmental investigation by the Russian governmental authorities, courts can issue decisions requiring part or all of the production at a facility that has violated environmental standards to be halted for a period of up to 90 days. We have been cited in Russia for various violations of

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environmental regulations in the past and we have paid certain fines levied by regulatory authorities in connection with these infractions. In June 2013, the Russian Federal Service for the Supervision of Natural Resources (**Rosprirodnadzor**) claimed 398.6 million rubles from Beloretsk Metallurgical Plant as compensation for damages caused by discharging waste water into the river Belaya and Beloretsk storage reservoir. This claim was resolved by means of a settlement agreement according to which Beloretsk Metallurgical Plant is obliged to reconstruct a waste treatment facilities system by December 31, 2023. See Item 8. Financial Information Litigation Environmental and safety. In February 2015, Rosprirodnadzor filed a similar claim in the amount of 195.3 million rubles against Beloretsk Metallurgical Plant. In accordance with the court's decision, Beloretsk Metallurgical Plant was obliged to perform a set of measures for equipment modernization until July 1, 2017, instead of paying a fine. Beloretsk Metallurgical Plant carried out part of the prescribed measures which allowed to reduce discharge of polluted waste water into the environment and to reach the statutory standards. Currently, Beloretsk Metallurgical Plant continues to perform measures prescribed by the court. In addition, in November 2017, Rosprirodnadzor conducted an inspection of Port Posiet and ordered to equip the port area with a waste treatment facilities system by October 1, 2018.

Though our production facilities have not been ordered to suspend operations due to environmental violations during the respective periods since we acquired or established them, there are no assurances that environmental protection authorities will not seek such suspensions in the future. In June 2017, the Department of Rosprirodnadzor for the Chelyabinsk region cancelled the permit for emissions of pollutants into the atmosphere issued to Mechel Coke. The emission of pollutants into the atmosphere in the absence of an emissions permit is an administrative violation that may lead to the imposition of a fine or suspension of operations for up to 90 days. In addition, until the obtainment of the permit, Mechel Coke will be subject to above-limit fees which are 25 times higher than the fee within the statutory standards. Mechel Coke filed a claim to challenge Rosprirodnadzor's order. In February 2018, the court invalidated the cancellation of the permit for emissions of pollutants into the atmosphere. In the event that production at any of our facilities is partially or wholly suspended due to this type of sanction, our business, financial condition, results of operations and prospects could be materially adversely affected.

Increased regulations associated with climate change and greenhouse gas emissions may give rise to increased costs and may adversely impact our business and markets.

Through our mining and power segments, we are a major producer of carbon-related products such as coal, coal concentrate and energy. Coal and coal-based energy are also significant inputs in many of the operations of our steel segment. A major by-product of the underground mining of coal is methane (CH₄) and a major by-product of coal burning is carbon dioxide (CO₂), both of which are considered to be greenhouse gases and generally a source of concern in connection with global warming and climate change.

The December 1997 Kyoto Protocol established a set of greenhouse gas emission targets for developed countries that have ratified the Kyoto Protocol. In order to give the countries a certain degree of flexibility in meeting their emission reduction targets, the Kyoto Protocol developed mechanisms allowing participating countries to earn and trade emissions credits by way of implementing projects aimed at meeting the Kyoto Protocol targets. The European Union has established greenhouse gas regulations and many other countries are in the process of doing so. The European Union Emissions Trading System (**EU ETS**) has had an impact on greenhouse gas and energy-intensive businesses based in the European Union. Our operations in Lithuania are currently subject to the EU ETS, as are our EU based customers.

The Russian Federation ratified the Kyoto Protocol in 2005 and since October 2009 Russia has established a legal procedure for implementing trading mechanisms provided under the Kyoto Protocol. However, in 2012, Russia refused to sign up for the second period of limits set to begin in 2013 and remain in effect until 2020.

In December 2015 at the Paris climate conference, 196 countries adopted the United Nations Framework Convention on Climate Change which is due to enter into force in 2020. The agreement sets out a global action

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plan to avoid climate change. As stated by Mr. Putin during his speech at the Paris conference, Russia expects to decrease greenhouse gas emissions to 70% of the 1990 level by 2030. Furthermore, the Russian Federation shall develop a long-term plan to reduce greenhouse gas emissions and shall establish a strategy on adaptation to climate change. In 2015-2017, the Ministry of Natural Resources and Ecology of the Russian Federation has approved a number of methodology guidelines for the quantification of the amount of greenhouse gas emissions by organizations conducting business and other activities in Russia.

Further Russia's steps on implementation of the United Nations Framework Convention on Climate Change could restrict our operations and/or impose significant costs or obligations on us, including requiring additional capital expenditures, modifications in operating practices, and additional reporting obligations. These regulatory programs may also have a negative effect on our production levels, profit and cash flows and on our suppliers and customers, which could result in higher costs and lower sales. Finally, we note that even without further legislation or regulation of greenhouse gas emissions, increased awareness and any adverse publicity in the global marketplace about the greenhouse gasses emitted by companies in the steel manufacturing industry could harm our reputation and reduce customer demand for our products.

Failure to comply with existing laws and regulations could result in substantial additional compliance costs or various sanctions which could materially adversely affect our business, financial condition, results of operations and prospects.

Our operations and properties are subject to regulation by various government entities and agencies in connection with obtaining and renewing various licenses, permits, approvals and authorizations, as well as with ongoing compliance with existing laws, regulations and standards. See Item 4. Information on the Company Regulatory Matters Licensing of Operations in Russia. Governmental authorities in countries where we operate exercise considerable discretion in matters of enforcement and interpretation of applicable laws, regulations and standards, the issuance and renewal of licenses, permits, approvals and authorizations, and in monitoring licensees' compliance with the terms thereof which may result in unexpected audits, criminal prosecutions, civil actions and expropriation of property. For example, in November 2015, the Ministry for Investment and Development of the Republic of Kazakhstan unilaterally terminated the contract for the silicate nickel ore production at the Shevchenko deposit in Kazakhstan's Kostanay region entered into in connection with the subsoil license for the Shevchenko deposit due to non-compliance with the terms of the contract. Governmental authorities have the right to, and frequently do, conduct periodic inspections of our operations and properties throughout the year.

Our failure to comply with existing laws and regulations or to obtain and comply with all approvals, authorizations and permits required for our operations or findings of governmental inspections may result in the imposition of fines or penalties or more severe sanctions including the suspension, amendment or termination of our licenses, permits, approvals and authorizations or in requirements that we cease certain of our business activities, or in criminal and administrative penalties applicable to our officers. Any such actions, decisions, requirements or sanctions could increase our costs and materially adversely affect our business, financial condition, results of operations and prospects.

The concentration of our shares with our largest shareholders will limit your ability to influence corporate matters and transactions with largest shareholders may present conflicts of interest, potentially resulting in the conclusion of transactions on less favorable terms than could be obtained in arm's length transactions.

Our Chairman, Igor Zyuzin may be deemed to be the beneficial owner of approximately 26.47% of our common shares. Our Chairman's wife Mrs. Irina Zyuzina and their son Mr. Kirill Zyuzin together may be deemed to be the beneficial owners of approximately 18.70% of our common shares each separately. Ms. Ksenia Zyuzina, daughter of

Mr. Igor Zyuzin and Mrs. Irina Zyuzina, may be deemed to be the beneficial owner of approximately 23.63% of our common shares. Therefore, Mr. Igor Zyuzin and Mrs. Irina Zyuzina together beneficially own 45.17% of our common shares. See Item 7. Major Shareholders and Related Party

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Transactions. Except in certain cases as provided by the Federal Law On Joint-Stock Companies, dated December 26, 1995, as amended (the **Joint-Stock Companies Law**), resolutions at a general shareholders meeting are adopted by a majority of the voting stock at a meeting where shareholders holding more than half of the voting shares are present or represented. Accordingly, Mr. Zyuzin and his family members have the power to control the outcome of most matters to be decided by a majority of the voting stock present at a general shareholders meeting and can control the appointment of the majority of directors and the removal of all of the elected directors if they act in concert. In addition, our largest shareholders are likely to be able to take actions, which require a three-quarters supermajority of the voting stock present at such a general shareholders meeting, such as amendments to our charter, reorganization, significant sales of assets and other major transactions, if other shareholders do not participate in such meeting. Thus, our largest shareholders can take actions that you may not view as beneficial or prevent actions that you may view as beneficial, and as a result, the value of our common shares and ADSs could be materially adversely affected.

We have also engaged and will likely continue to engage in transactions with related parties, including our largest shareholder, which may present conflicts of interest, potentially resulting in the conclusion of transactions on less favorable terms than could be obtained in arm's length transactions. See Item 7. Major Shareholders and Related Party Transactions Related Party Transactions.

Our competitive position and future prospects depend on our senior management team.

Our ability to maintain our competitive position and to implement our business strategy is dependent on the performance of our senior management team and, in particular, Mr. Zyuzin, our Chairman and largest shareholder. Competition in Russia, and in the other countries where we operate, for senior management personnel with relevant expertise is intense due to the small number of qualified individuals. The loss or decline in the services of members of our senior management team or an inability to attract, retain and motivate qualified senior management personnel could have a material adverse effect on our business, financial condition, results of operations and prospects.

Antimonopoly regulation could lead to sanctions with respect to the subsidiaries we have acquired or established or our prices, sales volumes and business practices.

Our business has grown substantially through the acquisition and founding of companies, many of which required the prior approval or subsequent notification of the FAS or its predecessor agencies. Relevant legislation restricts the acquisition or founding of companies by legal entities or individuals acting alone or jointly with their group of persons without such approval or notification. This legislation is vague in certain parts and subject to varying interpretations. If the FAS were to conclude that a company was acquired or created in contravention of applicable legislation and that competition has been or could be limited as a result, it could seek redress, including invalidating the transactions that led to or could lead to the limitation of competition, obliging the acquirer or founder to perform activities to restore competition, and seeking the dissolution of the new company created as a result of reorganization. Any of these actions could materially adversely affect our business, financial condition, results of operations and prospects.

In 2008, the FAS issued a number of directives to our companies placing certain restrictions on our business practices. On May 13, 2008, the FAS issued a directive ordering Mechel and Southern Kuzbass Coal Company, as a group of companies holding a dominant position in the Russian coking coal market, to fulfill the following requirements:

to avoid the unjustified reduction of production volumes and product range at Southern Kuzbass Coal Company;

to provide, to the extent possible, equal supply terms to all customers without discrimination against companies not forming part of this group of companies;

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not to restrict other companies from supplying coking coal to the same geographical area of operations; and

to notify the FAS prior to any increase in domestic prices of coking coal and coking coal concentrate, if such increase amounts to more than 10% of the relevant price used 180 days before the date such increase is planned to take place, with submission to the FAS of the financial and economic reasoning for the planned increase of prices.

In connection with the establishment of Mechel Mining, the subsidiary into which we consolidated certain of our mining assets, we received a directive from the FAS dated June 23, 2008, which contains requirements as to the activities of Mechel Mining and its subsidiaries Yakutugol and Southern Kuzbass Coal Company, as a group of companies holding a dominant position in the Russian coking coal market. The requirements are the same as those described above.

In August 2008, as a result of an antimonopoly investigation into the business of our subsidiaries Mechel Trading House, Southern Kuzbass Coal Company, Yakutugol and Mechel Trading, the FAS found them to have abused their dominant position in the Russian market for certain grades of coking coal concentrate. The FAS issued a directive requiring these subsidiaries and their successors to, among others, refrain from taking any action in the Russian market for certain grades of coking coal concentrate which would or may preclude, limit or eliminate competition and/or violate third parties' interests, including fixing and maintaining a monopolistically high or low price, refusing or avoiding to enter into an agreement with certain buyers without good economic or technological reasons where the production or supply of the relevant grades of coking coal concentrate is possible and creating discriminatory conditions for buyers. Furthermore, material fines were imposed on Mechel Trading House, Southern Kuzbass Coal Company and Yakutugol.

In the event of a breach of the terms of business conduct set forth by the FAS, the FAS may seek to impose fines for violations of antimonopoly and administrative legislation. Such fines may include an administrative fine of an amount from 300 thousand to one million rubles or, if such violation has led or may lead to the prevention, limitation or elimination of competition, an administrative fine of up to 15% of the proceeds from sale of all goods, works and services in the market where such violation was committed, but not more than 2% of the aggregate amount of proceeds from sale of all goods, works and services in case of abuse of a dominant position and not more than 4% of the aggregate amount of proceeds from sale of all goods, works and services in case of conclusion of an inadmissible agreement according to the law. Russian legislation also provides for criminal liability for violations of antimonopoly legislation in certain cases. Furthermore, for systematic violations, a court may order, pursuant to a suit filed by the FAS, a compulsory split-up or spin-off of the violating company, and no affiliation can be preserved between the new entities established as result of such a mandatory reorganization. The imposition of any such liability on us or our subsidiaries could materially adversely affect our business, financial condition, results of operations and prospects.

In 2016 and 2017, the FAS conducted large-scale inspections of companies engaged in loading, unloading and storage of cargoes in ports of the Russian Federation concerning justification of applied tariffs for services. Based on the findings, a number of companies were found to have violated antimonopoly legislation in part of setting monopolistically high prices for services and were required to pay significant funds to the state budget. Our group companies which provide services of loading, unloading and storage of cargoes in ports were not subject to proceedings for violation of antimonopoly legislation in part of setting monopolistically high prices, however a possibility of new inspections remains. The FAS is also considering repeated introduction of government regulation of tariffs for services of loading, unloading and storage of cargoes in ports which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Negative publicity associated with any antimonopoly, administrative, criminal or other investigation or prosecution carried out with respect to our business practices, regardless of the outcome, could damage our reputation and result in a significant drop in the price of our shares and ADSs and could materially adversely affect our business, financial condition, results of operations and prospects.

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In the event that the minority shareholders of our subsidiaries were to successfully challenge past interested party transactions or do not approve interested party transactions in the future, we could be limited in our operational flexibility.

We own less than 100% of the equity interests in some of our subsidiaries. In addition, certain of our wholly-owned subsidiaries have previously had other shareholders. We and our subsidiaries have carried out, and continue to carry out, transactions among our companies which may be deemed controlling or controlled entities in relation to each other, as well as transactions with other parties which may be considered to be interested party transactions under Russian law. Since 2017, such transactions, generally, do not require prior consent of disinterested directors, disinterested independent directors or disinterested shareholders. However upon request of a sole executive body, a member of the collegial executive body, a member of the board of directors or a shareholder or group of shareholders holding in aggregate at least 1% of the voting shares, such prior consent must be obtained. The provisions of Russian law defining for which transactions a consent must be obtained are subject to different interpretations, and these transactions may not always be properly approved, including by former shareholders. We cannot make any assurances that our and our subsidiaries' applications of these rules will not be subject to challenge by shareholders. Any such challenges, if successful, could result in the invalidation of transactions, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, Russian law requires a three-quarters majority of the voting stock present at a general shareholders meeting to approve certain matters, including, for example, charter amendments, reorganizations, major transactions involving property in excess of 50% of the balance sheet value of the company's assets, acquisition by the company of outstanding shares and certain share issuances. In some cases, minority shareholders may not give prior consent to interested party transactions requiring their approval or other matters requiring approval of minority shareholders or supermajority approval. In the event that these minority shareholders or a shareholder holding at least 1% of the voting shares were to successfully challenge past interested party transactions, or do not approve or give prior consent to interested party transactions or other matters in the future, we could be limited in our operational flexibility and our business, financial condition, results of operations and prospects could be materially adversely affected.

Minority shareholder lawsuits, if resolved against our group companies, could have a material adverse effect on our financial condition and results of operations.

Russian corporate law allows minority shareholders to bring claims against the company challenging decisions of its governing bodies. In particular, they are entitled to challenge decisions of the general shareholders' meeting if such shareholder(s) did not participate in such meeting or voted against and this decision infringes such shareholder's rights and (or) interests. A shareholder or shareholders holding at least 1% of the voting shares or a member of the board of directors may also challenge the interested party and major transactions. These features of Russian corporate law are often abused by minority shareholders, who can bring claims in local courts seeking injunctions and other relief for which, in some cases, we may not receive notice. Any such actions by minority shareholders, if resolved against our group companies, could have a material adverse effect on our business, financial condition, results of operations and prospects. See Item 8. Financial Information Litigation Securities litigation.

A majority of our employees are represented by trade unions, and our operations depend on good labor relations.

As of December 31, 2017, approximately 57% of all our employees were represented by trade unions. Although we have not experienced any business interruption at any of our companies as a result of labor disputes from the dates of their respective acquisition by us and we consider our relations with our employees to be good, under Russian law unions have the legal right to strike and other Russian companies with large union representation periodically face interruptions due to strikes, lockouts or delays in renegotiations of collective

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bargaining agreements. Our businesses could also be affected by similar events if our relationships with our labor force and trade unions worsen in the future. We have extended the industry agreements for coal and ore mining and smelting industries and have renegotiated most related collective bargaining agreements. If we are unable to prolong collective bargaining agreements on similar conditions in the future or our employees are dissatisfied with the terms of the collective bargaining agreements and undertake any industrial action, it could have material adverse effects on our business, financial condition, results of operations and prospects.

We do not carry the types of insurance coverage customary in more economically developed countries for a business of our size and nature, and a significant adverse event could result in substantial property loss and inability to rebuild in a timely manner or at all.

The insurance industry is still developing in Russia, and many forms of insurance protection common in more economically developed countries are not available in Russia on comparable terms, including coverage for business interruption. At present, most of our Russian production facilities are not insured, and we have no coverage for business interruption or for third-party liability, other than insurance required under Russian law, collective agreements, loan agreements or other undertakings. Some of our international production facilities are not covered by comprehensive insurance typical for such operations in Western countries. We cannot assure you that the insurance we have in place is adequate for the potential losses and the liability we may suffer.

Since most of our production facilities lack insurance covering their property, if a significant event were to affect one of our facilities, we could experience substantial financial and property losses, as well as significant disruptions in our production activity, for which we would not be compensated by business interruption insurance.

Since we do not maintain separate funds or otherwise set aside reserves for these types of events, in case of any such loss or third-party claim for damages we may be unable to seek any recovery for lost or damaged property or compensate losses due to disruption of production activity. Any such uninsured loss or event may have a material adverse effect on our business, financial condition, results of operations and prospects.

If transactions, corporate decisions or other actions of members of our group and their predecessors-in-interest were to be challenged on the basis of non-compliance with applicable legal requirements, the remedies in the event of any successful challenge could include the invalidation of such transactions, corporate decisions or other actions or the imposition of other liabilities on such group members.

Businesses of our group, or their predecessors-in-interest at different times, have taken a variety of actions relating to the incorporation of entities, share issuances, share disposals and acquisitions, mandatory buy-out offers, acquisition and valuation of property, including land plots, interested party transactions, major transactions, decisions to transfer licenses, meetings of governing bodies, other corporate matters and antimonopoly issues that, if successfully challenged on the basis of non-compliance with applicable legal requirements by competent state authorities, counterparties in such transactions or shareholders of the relevant members of our group or their predecessors-in-interest, could result in the invalidation of such actions, transactions and corporate decisions, restrictions on voting rights or the imposition of other liabilities. As applicable laws of the jurisdictions where our group companies are located are subject to varying interpretations, we may not be able to defend successfully any challenge brought against such actions, decisions or transactions, and the invalidation of any such actions, transactions and corporate decisions or imposition of any restriction or liability could have a material adverse effect on our business, financial condition, results of operations and prospects.

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Terrorist attacks and threats, escalation of military activity, as well as massive cyber attacks or incidents, and government regulation in response to such attacks or acts of war may negatively affect our business, financial condition, results of operations and prospects.

Terrorist attacks and threats, escalation of military activity, as well as massive cyber attacks or incidents, and an increase in government regulation in response to such attacks or acts of war may negatively affect our business. There could be delays or losses in transportation and deliveries of our products to our customers, increased government regulation and decreased sales due to disruptions in the businesses of our customers. It is possible that any such occurrences could have a material adverse effect on our business, financial condition, results of operations and prospects.

We have used certain information in this document that has been sourced from third parties.

We have sourced certain information contained in this document from independent third parties, including private companies, government agencies and other publicly available sources. We believe these sources of information are reliable and that the information fairly and reasonably characterizes the industry in countries where we operate. However, although we take responsibility for compiling and extracting the data, we have not independently verified this information. In addition, the official data published by Russian federal, regional and local governments may substantially differ from those of Western countries. Official statistics may also be produced on different bases than those used in Western countries.

Risks Relating to Our Shares and the Trading Market

The price of our shares and ADSs could be volatile and could drop unexpectedly, making it difficult for investors to resell our shares or ADSs at or above the price paid.

The price at which our shares and ADSs trade is influenced by a large number of factors, some of which are specific to us and our operations and some of which are related to the mining and steel industries and equity markets in general. As a result of these factors, investors may not be able to resell their shares or ADSs at or above the price paid for them. In particular, the following factors, in addition to other risk factors described in this section, may have a material impact on the market price of our shares and ADSs:

investor perception of us as a company;

actual or anticipated fluctuations in our revenues or operating results;

announcement of intended acquisitions, disposals or financings, or speculation about such acquisitions, disposals or financings;

changes in our dividend policy, which could result from changes in our cash flow and capital position;

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sales of blocks of our common shares, common ADSs, preferred shares or preferred ADSs by significant shareholders, including the Justice persons;

price and timing of any refinancing of our indebtedness;

potential litigation involving us;

changes in financial estimates and recommendations by securities research analysts;

fluctuations in Russian and international capital markets, including those due to events in other emerging markets;

the performance of other companies operating in similar industries;

regulatory developments in the markets where we operate, especially Russia and the European Union;

international political and economic conditions, including the effects of fluctuations in foreign exchange rates, interest rates and oil prices and other events such as terrorist attacks, military

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operations, changes in governments and relations between countries, international sanctions, particular those currently in place against certain Russian companies and individuals, natural disasters and the uncertainty related to these developments;

news or analyst reports related to markets or industries in which we operate; and

general investor perception of investing in Russia.

As a result of deteriorating market conditions in 2014 for our main products, together with our high leverage, our shares and ADSs price dropped significantly in 2014, and ADSs started trading below one U.S. dollar and thus became non-compliant with the NYSE continuous listing standards. On February 27, 2015, the 30 trading-day average closing price of ADSs amounted to \$1.26 per ADS. As a result, we received official notice from the NYSE on March 2, 2015 that our ADSs came back into compliance with the listing standards.

On August 19, 2015, we received an official notice from the NYSE stating that the price for Mechel ADSs had fallen below the \$1.00 threshold and we were required to bring our share price and average share price back above one U.S. dollar within six months from the date of receipt of the notice. In order to regain compliance with the NYSE requirements, we changed the ratio of our ADSs from one ADS per one common share to one ADS per two common shares, which became effective on January 12, 2016. As a result, we received official notice from the NYSE on February 1, 2016 that our ADSs came back into compliance with the listing standards.

Our ability to pay dividends depends primarily upon receipt of sufficient funds from our subsidiaries.

Because we are a holding company, our ability to pay dividends depends primarily upon receipt of sufficient funds from our subsidiaries. Under Russian law, dividends may be declared and paid only out of net profits calculated under the Russian accounting standards and as long as certain conditions have been met, including if the value of the net assets, calculated under the Russian accounting standards, is not less (and would not become less as a result of the proposed dividend payment) than the sum of the charter capital, the reserve fund and the difference between the liquidation value and the par value of the issued and outstanding preferred shares. See Item 10. Additional Information Charter and Certain Requirements of Russian Legislation Description of Capital Stock Dividends. Currently, some of our subsidiaries do not meet this criteria and cannot approve payment of, or pay dividends. See Risks Relating to the Russian Federation One or more of our subsidiaries could be forced into liquidation on the basis of formal non-compliance with certain requirements of Russian law, which could materially adversely affect our business, financial condition, results of operations and prospects.

Furthermore, the payment of dividends by our subsidiaries and/or our ability to repatriate such dividends may, in certain instances, be subject to taxes, statutory restrictions, retained earnings criteria, and covenants in our subsidiaries financing arrangements and are contingent upon the earnings and cash flow of those subsidiaries. See note 24 to the consolidated financial statements. In addition, loan agreements which we have restructured contain restrictions on the payment of dividends on our common and preferred shares. See Item 8. Financial Information Dividend Distribution Policy.

Upon introduction of a system of recording the depositary's rights to the shares underlying depositary receipts, the depositary is required to disclose information on ADS and GDS owners in order to exercise voting rights and receive dividends with respect to the shares underlying ADSs and GDSs.

Effective January 1, 2013, a system of recording the depositary's rights to the shares underlying depositary receipts was introduced by the Federal Law No. 415-FZ of December 7, 2011, as amended on December 29, 2012 (**Federal Law No. 415-FZ**). Pursuant to the system, the underlying shares are no longer recorded at the depositary's owner's account opened with a Russian custodian holding a depo account of nominee holder with the issuer's shareholder register. Instead, the underlying shares are now recorded at a depo account of depositary programs opened with a Russian custodian which in its turn has a depo account of nominee holder

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opened with the central depository. On November 6, 2012, the FFMS granted JSC National Settlement Depository (**NSD**) the status of Russian central depository. Starting from November 6, 2013, the depo accounts of depository programs should be opened for depositaries, and shares represented by depository receipts should be recorded in depo accounts of depository programs.

In addition to the recording system, the Federal Law No. 415-FZ also sets forth obligations for a depository to disclose information on depository receipt owners and other legal entities exercising rights to depository securities in order to exercise voting rights with respect to the shares represented by depository receipts (**depository receipt owners**). The CBR by its Directive No. 3680-U dated June 15, 2015 sets forth the requirements for the provision of information about the depository receipt owners. Such information is provided to the issuer in the form of a list of persons who exercise the rights under the depository receipts. The list is provided to the issuer by the foreign depository which opens the depo account of depository programs. The list is provided for the preparation and holding of a shareholders meeting. Furthermore, any obligations of the depository to disclose information on depository receipt owners in order to receive dividends were abolished effective January 1, 2014 pursuant to the Federal Law No. 282-FZ of December 29, 2012, as amended (**Federal Law No. 282-FZ**). Under the Federal Law No. 282-FZ, the payment of dividends on the shares represented by depository receipts is made to the foreign depository which opens the depo account of depository programs.

Currently, it is not clear whether the term **depository receipt owner** means a holder registered on the records of the depository, a securities intermediary or a beneficial owner of a depository receipt. As a result, the scope of the above reporting obligations, which may affect the rights of our ADS and GDS holders, also remains uncertain. We cannot assure you that the Federal Law No. 415-FZ and the other regulations by the CBR, to which the powers of the FFMS were delegated, will be compatible with the way in which depository receipt programs were customarily operated in the past or with foreign confidentiality regulations, or that the requirements will not impose additional burdens upon the depository, ADS and GDS holders or their respective securities intermediaries, any of which may cause investments in our ADSs to be seen as less attractive.

In addition, the Federal Law No. 282-FZ requires the foreign depository to take all reasonable steps to provide information on depository receipt owners to the issuer, state arbitrazh courts, the CBR and governmental investigative authorities upon their request, and depository receipt owners may not refuse to provide such information in response to the depository if so requested. The CBR is entitled to demand the depository to cure any breach of such disclosure requirements, and if the depository fails to cure, the CBR may suspend or limit any operations with depo accounts of depository receipt program for up to six months with respect to the number of securities not exceeding the number of securities for which the obligation to provide information has not been fulfilled. It is unclear how the CBR will use these regulatory powers. Any suspension of or limitation on our ADS or GDS programs could have a material adverse effect on the value of the ADSs.

The depository may be required to take certain actions due to Russian law requirements which could adversely impact the liquidity and the value of the shares and ADSs.

If at any time the depository believes that the shares deposited with it against the issuance of ADSs represent (or, upon accepting any additional shares for deposit, would represent) a percentage of shares which exceeds any threshold or limit established by any applicable law, directive, regulation or permit, or satisfies any condition for making any filing, application, notification or registration or obtaining any approval, license or permit under any applicable law, directive or regulation, or taking any other action, the depository may (1) close its books to deposits of additional shares in order to prevent such thresholds or limits being exceeded or conditions being satisfied or (2) take such steps as are, in its opinion, necessary or desirable to remedy the consequences of such thresholds or limits being exceeded or conditions being satisfied and to comply with any such law, directive or regulation, including, causing *pro rata*

cancellation of ADSs and withdrawal of underlying shares from the depositary receipt program to the extent necessary or desirable to so comply. Any such circumstances may affect the liquidity and the value of the shares and ADSs.

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Voting rights with respect to the shares represented by our ADSs are limited by the terms of the relevant deposit agreement for the ADSs and relevant requirements of Russian law.

ADS holders have no direct voting rights with respect to the shares represented by the ADSs. They can only exercise voting rights with respect to the shares represented by ADSs in accordance with the provisions of the deposit agreements relating to the ADSs and relevant requirements of Russian law. Therefore, there are practical limitations upon the ability of ADS holders to exercise their voting rights due to the additional procedural steps which are involved. Our charter require us to notify shareholders not less than 30 days prior to the date of any meeting of shareholders and at least 50 days prior to the date of an extraordinary meeting to elect our board of directors. Within specified time limits, a notice of the general shareholders meeting shall be published on our site www.mechel.ru in the information and telecommunication network Internet. It also may be brought to the attention of persons entitled to participate in the general shareholders meeting and registered in the register of shareholders by other means, including by post or delivery to each of the above persons against signature or via publishing in the newspaper *Rossiyskaya Gazeta*. As an additional way of notification, other mass media (television, radio) can be used. Our common shareholders, as well as our preferred shareholders in cases when they have voting rights, are able to exercise their voting rights by either attending the meeting in person or voting by power of attorney.

For ADS holders, in accordance with the deposit agreements, we will provide the notice to the depository. The depository has in turn undertaken, as soon as practicable thereafter, to mail to ADS holders notice of any such meeting of shareholders, copies of voting materials (if and as received by the depository from us) and a statement as to the manner in which instructions may be given by ADS holders. To exercise their voting rights, ADS holders must then timely instruct the depository how to vote their shares. As a result of this extra procedural step involving the depository, the process for exercising voting rights may take longer for ADS holders than for holders of shares. ADSs for which the depository does not receive timely voting instructions will not be voted at any meeting.

In addition, although securities regulations expressly permit the depository to split the votes with respect to shares underlying the ADSs in accordance with instructions from ADS holders, there is little court or regulatory guidance on the application of such regulations, and the depository may choose to refrain from voting at all unless it receives instructions from all ADS holders to vote the shares in the same manner. Holders of ADSs may thus have significant difficulty in exercising voting rights with respect to the shares underlying the ADSs. There can be no assurance that holders and beneficial owners of ADSs will: (1) receive notice of shareholder meetings to enable the timely return of voting instructions to the depository; (2) receive notice to enable the timely cancellation of ADSs in respect of shareholder actions; or (3) be given the benefit of dissenting or minority shareholders rights in respect of an event or action in which the holder or beneficial owner has voted against, abstained from voting or not given voting instructions.

ADS holders may be unable to repatriate their earnings.

Dividends that we may pay in the future on the shares represented by the ADSs will be declared and paid to the depository in rubles. Such dividends will be converted into U.S. dollars by the depository and distributed to holders of ADSs, net of the fees and charges of, and expenses incurred by, the depository, together with taxes withheld and any other governmental charges. The ability to convert rubles into U.S. dollars is subject to the currency markets. Although there is an active market for the conversion of rubles into U.S. dollars, including the interbank currency exchange and over-the-counter and currency futures markets, the functioning of this market in the future is not guaranteed and, in particular may be negatively impacted by any future imposition of exchange controls imposed by the Russian authorities in an effort to stabilize the value of the ruble.

ADS holders may not be able to benefit from the United States-Russia income tax treaty.

Under Russian tax legislation, dividends paid to a non-resident holder of shares of a Russian company generally will be subject to a 15% withholding tax. This tax rate may potentially be reduced to 10% or 5% for

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U.S. holders of the shares that are legal entities and organizations and to 10% for U.S. holders of the shares that are individuals under the Convention between the United States of America and the Russian Federation for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital (the **United States-Russia income tax treaty**), provided a number of conditions are satisfied. In connection with the enactment of amendments to Russian tax legislation, effective from January 1, 2014, the reduced tax rate of 5% established in accordance with certain provisions of the United States-Russia income tax treaty does not apply on dividend payments under ADSs. The general rate of 10% which is established by the treaty and does not account for benefits applies, subject to the submission of certain information to the tax agent. If such information has not been submitted to the tax agent in the prescribed manner and in a certain period of time, a tax rate of 30% is applied. Thus, the tax agent may be obliged to withhold tax at higher non-treaty rates when paying out dividends, and U.S. ADS holders may be unable to benefit from the United States-Russia income tax treaty. ADS holders may apply for a refund of a portion of the tax withheld under an applicable tax treaty, however, this process may be time-consuming and no assurance can be given that the Russian tax authorities will grant a refund. See Item 10. Additional Information Taxation Russian Income and Withholding Tax Considerations for additional information.

Capital gains from the sale of ADSs may be subject to Russian profit tax.

Under Russian tax legislation, gains realized by foreign organizations from the disposition of Russian shares and securities, as well as financial instruments derived from such shares, with the exception of shares that are traded on an organized securities market, may be subject to Russian profit tax or income tax if more than 50% of our assets directly or indirectly consist of immovable property located in Russia. Gains arising from the sale on foreign exchanges (foreign market operators) of securities or derivatives circulated on such exchanges are not considered Russian source income.

However, no procedural mechanism currently exists to withhold and remit this tax with respect to sales made to persons other than Russian companies and foreign companies with a registered permanent establishment in Russia. Gains arising from the disposition on foreign stock exchanges of the foregoing types of securities listed on these exchanges are not subject to taxation in Russia.

Gains arising from the disposition of the foregoing types of securities and derivatives outside of Russia by U.S. holders who are individuals not resident in Russia for tax purposes will not be considered Russian source income and will not be taxable in Russia. Gains arising from disposition of the foregoing types of securities and derivatives in Russia by U.S. holders who are individuals not resident in Russia for tax purposes may be subject to a withholding tax in Russia based on an annual tax return, which they may be required to submit with the Russian tax authorities.

Holders of ADSs may have limited recourse against us and our directors and executive officers because most of our operations are conducted outside the United States and all of our directors and executive officers reside outside the United States.

Our presence outside the United States may limit ADS holders' legal recourse against us. Mechel is incorporated under the laws of the Russian Federation. Our directors and executive officers reside outside the United States, principally in Russia. A substantial portion of our assets and the assets of most of our directors and executive officers are located outside the United States. As a result, holders of our ADSs may be limited in their ability to effect service of process within the United States upon us or our directors and executive officers or to enforce in a U.S. court a judgment obtained against us or our directors and executive officers in jurisdictions outside the United States, including actions under the civil liability provisions of U.S. securities laws. In addition, it may be difficult for holders of ADSs to enforce, in original actions brought in courts in jurisdictions outside the United States, liabilities predicated upon U.S. securities laws.

There is no treaty between the United States and the Russian Federation providing for reciprocal recognition and enforcement of foreign court judgments in civil and commercial matters. These limitations may deprive

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investors of effective legal recourse for claims related to investments in the ADSs. The deposit agreements provide for actions brought by any party thereto against us to be settled by arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association, provided that any action under the U.S. federal securities laws or the rules or regulations promulgated thereunder may, but need not, be submitted to arbitration. The Russian Federation is a party to the United Nations (New York) Convention on the Recognition and Enforcement of Foreign Arbitral Awards, but it may be difficult to enforce arbitral awards in the Russian Federation due to a number of factors, including the inexperience of Russian courts in international commercial transactions, official and unofficial political resistance to enforcement of awards against Russian companies in favor of foreign investors and Russian courts inability to enforce such orders.

We and the Justice persons may offer additional preferred shares and preferred ADSs in the future, and these and other sales may adversely affect the market price of the preferred shares and preferred ADSs.

As of March 31, 2018, out of the 138,756,915 issued preferred shares, 40% are held by our wholly-owned subsidiary Skyblock Limited, the remaining preferred shares are held by the public and may be held by James C. Justice II, James C. Justice III, James C. Justice Companies Inc. and Jillean L. Justice (collectively, the **Justice persons**). The Justice persons disposed or may dispose of all or part of the remaining preferred shares they held through one or more offerings or broker trades. It is also possible that we may decide to offer additional preferred shares and preferred ADSs through public offering or broker trades in the future, including preferred shares held by Skyblock Limited. Additional offerings or sales of preferred shares and preferred ADSs by us or the Justice persons, or the public perception that such offerings or sales may occur, could have an adverse effect on the market price of our preferred shares and preferred ADSs.

Risks Relating to the Russian Federation

Emerging markets such as Russia are subject to greater risks than more developed markets, and financial turmoil in developed or other emerging markets could have a material adverse effect on our business and could cause the value of our shares and ADSs to fluctuate widely.

Investors in emerging markets such as the Russian Federation should be aware that these markets are subject to greater risk than more developed markets, including in some cases significant legal, economic and political risks. Investors should also note that the value of securities of Russian companies is subject to rapid and wide fluctuations due to various factors. The emergence of new tensions between Russia and other countries, imposed sanctions by the Russian Federation on some countries and vice versa may lead to outflow of the investors from the market, quick and huge sales of Russian assets which will result in reductions in the price of Russian securities. We cannot assure you that any such developments will not have a material adverse effect on our business, financial condition, results of operations and prospects, and the value of our shares and ADSs is expected to be highly volatile while tension between Russia and other countries remains unresolved and/or the Russian economy continues to deteriorate.

Investors should also note that emerging markets such as the Russian Federation are subject to rapid change and that the information set forth in this document may become outdated relatively quickly. Moreover, financial turmoil in any emerging market country tends to affect adversely the value of investments in all emerging market countries as investors move their money to more stable, developed markets. As has happened in the past, financial problems or an increase in the perceived risks associated with investing in emerging economies could dampen foreign investment in the Russian Federation and adversely affect the Russian economy. In addition, during such times, companies that operate in emerging markets can face liquidity constraints as foreign funding sources become less available. Accordingly, investors should exercise particular care in evaluating the risks involved and must decide for themselves whether, in light of those risks, their investment is appropriate. Generally, investment in emerging markets is only

suitable for sophisticated investors who fully appreciate the significance of the risks involved.

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Domestic, regional and international political and diplomatic conflicts could create an uncertain operating environment that could adversely affect our business and hinder our long-term planning ability.

Russia has endured ethnic, religious, historical and other divisions, which have, on occasion, given rise to tensions and, in certain cases, diplomatic and military conflict, both internally and with other countries.

For example, the Russian Federation was involved in armed conflict with Georgia in August 2008, and differing views on the Georgia conflict have had an impact on the relationship between the Russian Federation, the European Union, the United States and certain former Soviet Union countries. In addition, the relationship between Ukraine and the Russian Federation has in the recent past been subject to significant strain for a number of reasons, including Ukraine's failure to pay and accumulation of payment arrears relating to the supply of energy resources, Ukraine's possible accession to NATO and the European Union. More recently, Russia's relations with Ukraine have reached an historic post-Soviet low point following renewed political instability in Ukraine that resulted in the departure from office of Mr. Yanukovich (Ukraine's former president), Russia's role in the subsequent accession of Crimea and Sevastopol to Russia, and widespread accusations that Russia is actively involved in or otherwise supporting insurgents in eastern Ukraine in their struggle against Ukraine's central authorities. This has resulted in a substantial deterioration in Russia's relations with the United States, the European Union and other countries such as Canada, Japan and Australia, and has led to the imposition of sanctions against certain Russian individuals and entities and has contributed to certain volatility in the Russian economy and a deterioration in Russia's macroeconomic condition and prospects. See **Risks Relating to the Russian Federation** The political and economic crisis in Ukraine as well as other politically related disagreements and allegations between Russia and other countries and sanctions imposed as a result thereof by the United States and the European Union may have a material adverse effect on our business, liquidity and financial condition, as well as the trading market for and value of our shares and ADSs. More recently in March 2018, more than 140 Russian diplomats were expelled worldwide and Russia in turn announced the expulsion of 60 American diplomats and the closure of the United States consulate in Saint Petersburg, Russia. If any of these tensions intensify or new tensions emerge between the Russian Federation and Ukraine, Georgia, the European Union, the United States or any other countries, leading potentially to the imposition of further trade sanctions or embargoes, the Russian economy will likely experience further volatility and deterioration.

In September 2015, the Russian Federal Council approved the use of Russian forces in Syria, following a formal request from the Syrian government. Operations in Syria commenced in late September 2015. In December 2017, the Russian President ordered to start partially reverting the operations in Syria, nevertheless, the Russian military contingent is still involved in operations which take place in Syria. Furthermore, in November 2015, the Turkish air force shot down a Russian strike aircraft over the territory of Syria, which resulted in tensions between Russia and Turkey and led to imposition of wide range of sanctions by Russia against Turkey, which were partially removed in the second half of 2016 and in 2017.

Many of the aforementioned events have adversely affected the Russian economy and the Russian financial and banking markets, increased capital outflows, as well as worsened general business and investment climate in Russia. The Russian stock exchanges have experienced heightened volatility, Russia's credit markets have tightened, and the exchange rate of the ruble against the U.S. dollar and other currencies has depreciated significantly.

In part as a result of political tensions, international sanctions, ruble volatility and drop in the oil price, in January 2015, Standard & Poor's lowered the long- and short-term Russian Federation's foreign currency rating to **BB+/B** from **BBB-/A-3** and local currency rating to **BBB-/A-3** from **BBB/A-2**, both with a negative outlook. In September 2016, Standard & Poor's confirmed the Russian Federation's ratings and revised the outlook from negative to stable. In March and September 2017, the Russian Federation's ratings were confirmed at previous levels (**BB+/B** for foreign currency and **BBB-/A-3** for local currency) with outlook changed to positive. In February 2018, Standard & Poor's raised the

Russian Federation's ratings to BBB-/A-3 for foreign currency and BBB/A-2 for local currency, both with a stable outlook. In January 2015, Moody's Investors

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Service lowered Russia's government bond rating to Baa3 from Baa2, further downgrading it in February 2015 to Ba1, with a negative outlook. In February 2017, Moody's confirmed Russia's Ba1 rating and revised the outlook from negative to stable and further revised the outlook from stable to positive in January 2018. In January 2015, Fitch downgraded the Russian Federation's long-term foreign and local currency Issuer Default Rating to BBB- with a negative outlook. In October 2016, Fitch confirmed the Russian Federation's ratings and revised the outlook from negative to stable. In March and September 2017, the Russian Federation's ratings were confirmed at BBB- with a change in outlook to positive. In February 2018, Fitch reconfirmed the Russian Federation's ratings.

The risks associated with these events or potential future events could materially and adversely affect the investment environment and overall consumer confidence in the Russian Federation, which in turn could have a material adverse effect on our business, financial condition, results of operations and prospects.

The political and economic crisis in Ukraine as well as other politically related disagreements and allegations between Russia and other countries and sanctions imposed as a result thereof by the United States and the European Union may have a material adverse effect on our business, liquidity and financial condition, as well as the trading market for and value of our shares and ADSs.

In connection with the events in Ukraine, the United States and the European Union (as well as certain other countries) have imposed sanctions on certain Russian and Ukrainian persons and entities. Furthermore, the United States contemplate to implement further legislation to impose sanctions on Russia, including in connection with the alleged interference into the 2016 U.S. Presidential election, as of the date hereof the discussions are still ongoing.

The current sanctions regime is a result of multiple extensions by the U.S. and EU in the term and scope of sanctions, the most recent of which were taken in March 2018 (in relation to both, the EU and the U.S. sanctions). It is currently unclear how long these sanctions will remain in place and whether new sanctions may be imposed. In addition, on August 2, 2017, President Trump signed into law the Countering America's Adversaries Through Sanctions Act (the **Act**) that includes additional sanctions against Russian entities. The Act, inter alia, (a) codifies the existing sanctions against Russia established by former President Obama's executive orders, (b) reduces the permitted terms of financing under the existing sectoral sanctions and further restricts supplies of equipment to certain Russian energy companies, (c) allows the U.S. President to extend sectoral sanctions to further sectors of the Russian economy (such as railways, mining and metals) and introduce additional sanctions against new persons, (d) provides for imposing a set of secondary sanctions, which target activities of non-U.S. persons, such that foreign persons who engage in certain activities in Russia (in relation to, inter alia, construction, modernization and repair of energy export pipelines, intelligence and defense sectors, sanctions evasion, privatizations and activities that undermine the cybersecurity of any person or government) now face the prospect of adverse economic consequences from the United States in the form of a denial of U.S. benefits. The sanctions package may have a material adverse effect on the Russian financial markets and investment climate and the Russian economy generally.

No individual or entity within our group has been designated with sanctions. Additional designations may be made, or additional categories of sanctions may be created, at any time, and we can give no assurance that any member of our group, or individuals holding positions in our group, will not be affected by future sanctions designations. The U.S. regulations identify metals and mining as an example of a sector that may be identified for sectoral sanctions, however, at this time, no such identification has been made. U.S. law also provides that persons that have materially assisted, sponsored or provided financial, material or technological support for, or goods or services to or in support of any targeted person or activity may be designated for sanctions. Mechel, like a large number of Russian companies, has commercial relationships with entities that are subject to U.S. sanctions.

Furthermore, certain entities within our group are EU persons. These entities are therefore required to comply with the EU sanctions regime, including not conducting business with any sanctioned persons. Most of

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the group's entities, however, are neither U.S. persons nor EU persons, and therefore are restricted in dealings with sanctioned persons only to the extent those dealings are subject to U.S. and/or EU jurisdiction. However, the United States takes a broad view with respect to its sanctions jurisdiction, and there can be no assurance that compliance issues under applicable U.S. and/or EU sanctions laws and regulations will not arise with respect to us or our personnel. In particular, sanctions against Russia and Russian subjects are very recent, their scope and consequences remain subject to interpretation by competent authorities and courts in the United States and the European Union, and no assurance can be given that a broader interpretation may not affect any of the group entities. Non-compliance with applicable sanctions could result in, among other things, the inability of the relevant group entities to contract with U.S. and/or EU governments or their agencies, civil or criminal liability of such entities and/or their personnel under U.S. and/or EU law, the imposition of significant fines, and negative publicity and reputational damage. In addition, should our dealings with sanctioned counterparties become material, our ability to transact with U.S. or EU persons could be affected. As a result, our ability to raise funding from international financial institutions or the international capital markets may be inhibited.

Further tensions between Russia and other countries and any escalation of related tensions between Russia and the United States and/or the European Union, the imposition of further sanctions, or continued uncertainty regarding the scope thereof, could have a prolonged adverse impact on the Russian economy, particularly levels of disposable income, consumer spending and consumer confidence, as well as the ability of Russian banks to sustain required liquidity levels and comply with their financial obligations. These impacts could be more severe than those experienced to date. In particular, should either the United States or the European Union expand their respective sanctions on our existing or future clients, suppliers or other counterparties, a large sector of the Russian economy or otherwise, such an expansion could result in our dealings with designated persons, if any, being materially adversely impacted, the suspension or potential curtailment of business operations between us and the designated persons could occur, and substantial legal and other compliance costs and risks on our business operations could emerge.

Moreover, if we become subject to U.S. or EU sanctions, we may become unable to deal with persons or entities bound by the relevant sanctions, including international financial institutions and rating agencies, transact in U.S. dollars, raise funds from international capital markets, acquire equipment from international suppliers, or access our assets held abroad. Should any sector in which we operate become subject to so-called sectoral sanctions, in either of the United States or the European Union, the relevant clearing systems, brokers and other market participants as well as the New York Stock Exchange (**NYSE**) may refuse to permit trading in or otherwise facilitate transfers of the ADSs. Furthermore, investors in our shares or ADSs may be restricted in their ability to sell, transfer or otherwise deal in or receive distributions with respect to our shares or ADSs, either because the investor or (in the case of ADSs) the depositary is subject to the jurisdiction of an applicable sanctions regime, which could make such shares or ADSs partially or completely illiquid and have a material adverse effect on their market value.

An expansion of sanctions as set forth above would likely have a material adverse impact on our business, financial condition, results of operations or prospects.

Economic risks

Economic instability in Russia could adversely affect our business and the value of our shares and ADSs.

The Russian economy has experienced various risks in the past, including high state debt, high interest rates, devaluation of the national currency and others, as well as positive trends, such as annual increases in the gross domestic product (**GDP**), a relatively stable ruble, strong domestic demand, rising real wages and reduced rates of inflation. However, the positive trends were interrupted by the global financial crisis in late 2008, which led to a substantial decrease in the GDP's growth rate, ruble depreciation and a decline in domestic demand. The Russian

government took certain anti-crisis measures using the stabilization fund and hard currency reserves in order to soften the impact of the economic crisis on the Russian economy and support the value of the ruble. The

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emerging market economies, including Russia, began to experience a new economic slowdown in 2013, which together with political and other disturbances in emerging markets have introduced additional uncertainty in the overall outlook for growth of the global economy. Growth in the Russian economy has slowed down considerably, recording GDP decline of 3.7% in 2015 and 0.2% in 2016, according to Rosstat. In 2017, GDP recorded growth of 1.5%, according to Rosstat. The deterioration of Russian economy in recent years is resulted from an array of factors, including negative investor sentiment arising from the disturbances in eastern Ukraine, international sanctions imposed on Russian companies and individuals, substantial depreciation of the ruble against major world currencies and the precipitous drop in oil prices. See **Risks Relating to the Russian Federation** The political and economic crisis in Ukraine as well as other politically related disagreements and allegations between Russia and other countries and sanctions imposed as a result thereof by the United States and the European Union may have a material adverse effect on our business, liquidity and financial condition, as well as the trading market for and value of our shares and ADSs. Further economic instability in Russia could have a material adverse effect on our business, financial condition, results of operations and prospects and the value of our shares and ADSs.

The Russian banking system is still developing, and another banking crisis or international sanctions could place severe liquidity constraints on our business.

A substantial portion of our loans are from Russian banks, including state-owned banks such as Sberbank, VTB Bank and Gazprombank, who in recent years have extended the maturity of our loans, waived breaches of financial covenants and reset our financial covenants to give us more flexibility to operate our business. Such banks may not exhibit the same degree of flexibility with respect to our financings as they have in the past due to the imposition of international sanctions against them. Moreover, we rely on the Russian banking system to complete various day-to-day fund transfers and other actions required to conduct our business with customers, suppliers, lenders and other counterparties.

Despite progress achieved in recent years, the Russian banking system suffers from international sanctions imposed against state-owned banks, weak depositor confidence, high concentration of exposure to certain borrowers and their affiliates, poor credit quality of borrowers and related party transactions. In response to ruble depreciation and decline in Russian economy the CBR progressively increased its key rate in 2014 from 5.5% to 17%, which resulted in substantial volatility and liquidity shortages on the domestic financial and interbank market. The CBR proceeded to gradually reduce its key rate to 7.25% throughout 2015-2018 and introduced other measures aimed at supporting Russian banking system. Although these measures resulted in partial stabilization of the banking system and assisted some Russian banks in withstanding the recent volatility on the currency and financial markets, the Russian banking system continues to experience financial difficulties and could continue to worsen in the near future due to the impact of international sanctions and general instability of global and Russian economy and domestic financial market. Certain Russian banks have in the past experienced difficulties that have caused them to become insolvent and have their licenses revoked, such as most recently the Bank Yugra, or to recognize large loan impairment provision losses that required steps to replenish their capital, as in the case of the Promsvyazbank, Bin Bank and Otkritie Bank.

A banking or liquidity crisis or the bankruptcy or insolvency of the banks which lend to us or we use for banking transactions could have a material adverse effect on our business, results of operations, financial condition and prospects.

The infrastructure in Russia needs significant improvement and investment, which could disrupt normal business activity.

The infrastructure in Russia largely dates back to the Soviet era and has not been adequately funded and maintained since the dissolution of the Soviet Union. Particularly affected are the rail and road networks, power generation and

transmission systems, communication systems and building stock. The deterioration of the infrastructure in Russia harms the national economy, disrupts the transportation of goods and supplies, adds costs

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to doing business and can interrupt business operations. These factors could have a material adverse effect on our business, financial condition, results of operations and prospects.

The Russian economy and the value of our shares and ADSs could be materially adversely affected by fluctuations in the global economy.

The global economic crisis, social and political instability in some Middle East countries and in Ukraine, Chinese economic slowdown followed by Chinese market's crash and decline in demand and dramatic fall in oil prices and other negative developments in various countries have resulted in increased volatility in the capital markets in many countries, including Russia. As has happened in the past, financial problems in emerging market economies or an increase in the perceived risks associated with investing in emerging market economies could dampen foreign investment in Russia, and Russian businesses could face severe liquidity constraints, further materially adversely affecting the Russian economy. In addition, because Russia produces and exports large amounts of oil, the Russian economy is especially vulnerable to the price of oil on the world market and a decline in the price of oil or international sanctions against the Russian oil industry could slow or disrupt the Russian economy or undermine the value of the ruble against foreign currencies. During the period from December 15, 2014 to December 14, 2015, the average price for Urals crude oil in the Mediterranean and Rotterdam petroleum markets fell by 24.6%, from \$381.8 per tonne to \$287.7 per tonne, according to the Ministry of Economic Development of the Russian Federation. Although during the period from December 15, 2015 to December 14, 2016 the average price for Urals crude oil has risen by 47.3% and has further risen by 19.0% during the period from December 15, 2016 to December 14, 2017, prices for petroleum feedstock remain volatile. The ruble's value against major world currencies has fallen significantly in 2015 and although ruble has recovered during 2016 and 2017 it still remains volatile. See Item 3. Key Information Exchange Rates. Russia is also one of the world's largest producers and exporters of metal products and its economy is vulnerable to fluctuations in world commodity prices and the imposition of international sanctions, tariffs and/or antidumping measures by any of its principal export markets.

As many of the factors that affect the Russian and global economies affect our business and the business of many of our domestic and international customers, our business could be materially adversely affected by a downturn in the Russian economy or the global economy. In addition to a reduction in demand for our products, we may experience increases in overdue accounts receivable from our customers, some of whom may face liquidity problems and potential bankruptcy. Our suppliers may raise their prices, eliminate or reduce trade financing or reduce their output. A decline in product demand, a decrease in collectibility of accounts receivable or substantial changes in the terms of our suppliers' pricing policies or financing terms, or the potential bankruptcy of our customers or contract counterparties may have a material adverse effect on our business, financial condition, results of operations and prospects.

In June 2016, a majority of voters in the United Kingdom elected to withdraw from the EU in a national referendum. In early February 2017, the parliament of the United Kingdom voted in favor of advancing legislation that would give the Prime Minister the authority to initiate the formal process of leaving the EU. On March 29, 2017, the Prime Minister of the United Kingdom signed the letter that gives an official notice to European Council in accordance with Article 50 of the Treaty on European Union of the United Kingdom's intention to withdraw from the European Union, beginning a legal process of leaving the EU. As a result, there remains significant uncertainty about the future relationship between the United Kingdom and the EU. In addition, the recent U.S. presidential election, as a result of which the Republican party nominee, Donald Trump, became the next president of the United States, may impact the financial markets and lead to greater uncertainty on the status of trade relations between the U.S. and some of its largest trade partners, including the U.S.'s existing trade agreements. These developments, or the perception that any of them could occur, have had and may continue to have a material adverse effect on global economic conditions and the stability of global financial markets, and may significantly reduce global market liquidity and restrict the ability of key

market participants to fund their capital and liquidity requirements and operate in certain financial markets. Any of these factors could depress economic activity, commodities markets and restrict access to capital, which could result in the global economic conditions deterioration.

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In addition, a deterioration in macroeconomic conditions could require us to reassess the value of goodwill on certain of our assets, recorded as the difference between the fair value of the net assets of business acquired and its purchase price. This goodwill is subject to impairment tests on an annual basis. The weakening macroeconomic conditions in the countries in which we operate and/or a significant difference between the performance of an acquired company and the business case assumed at the time of acquisition could require us to write down the value of the goodwill or portion of such value. See note 18 to the consolidated financial statements.

Political and social risks

Political and governmental instability could materially adversely affect our business, financial condition, results of operations and prospects and the value of our shares and ADSs.

Tensions in Russia's relations with other countries and world bodies or conflicts between the government and powerful business groups or among such business groups, as well as the continuation of and the development of international sanctions imposed on Russian institutions, organizations and individuals could disrupt or reverse political, economic and regulatory reforms and also lead to restrictions on our business and a negative impact on Russia's economy and investment climate. Any disruption or reversal of reform policies or economic downturn could lead to social, political or governmental instability or the occurrence of conflicts between various groups, which could have a material adverse effect on our business, financial condition, results of operations and prospects and the value of our shares and ADSs and impede our efforts to restructure our indebtedness.

Corruption and negative publicity could negatively impact our business and the value of our shares and ADSs.

The local press and international press have reported high levels of corruption in Russia, including unlawful demands by government officials and the bribery of government officials for the purpose of initiating investigations by government agencies. Press reports have also described instances in which government officials engaged in selective investigations and prosecutions to further the commercial interests of certain government officials or certain companies or individuals. In addition, there are reports of the Russian media publishing disparaging articles in return for payment. From time to time, we are the subject of press reports that we believe contain false information about our business and financial condition as well as our largest shareholder. If we or our managers, largest shareholder or counterparties are accused of involvement in government corruption or are otherwise the subject of libelous reports in the press, the resulting negative publicity could disrupt our ability to conduct our business and impair our relationships with customers, suppliers, creditors and other parties, which could have a material adverse effect on our business, financial condition and results of operations and the value of our shares and ADSs and impede our efforts to restructure our indebtedness.

Shortage of skilled Russian labor could materially adversely affect our business, financial condition, results of operations and prospects.

Currently the Russian labor market suffers from a general shortage of skilled and trained workers, and we compete with other Russian companies to hire and retain such workers. In Russia, the working age population has declined due to a relatively low birth rate at the end of the 1980s and through the early 1990s. As of January 1, 2018, Rosstat estimated Russia's population at 146.9 million, a decline of 1.6 million from 1992. In recent years, declines in population levels slowed down as a result of an increase in migration and a reduction in the natural decline of the population; in 2014-2017, the population level in fact increased. However, the birth rate remains relatively low, which together with the aging and high mortality of the population, is the main problem of Russia's demographic development. Russia's working age population is estimated to decline by 10-13 million by 2025. A shortage of skilled Russian labor combined with restrictive immigration policies could materially adversely affect our business, financial

condition, results of operations and prospects.

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Legal risks and uncertainties

Deficiencies in the legal framework relating to subsoil licensing subject our licenses to the risk of governmental challenges and, if our licenses are suspended or terminated, we may be unable to realize our reserves, which could materially adversely affect our business, financial condition, results of operations and prospects.

Most of the existing subsoil licenses in Russia date from the Soviet era. The Russian government enacted the Procedure for Subsoil Use Licensing on July 15, 1992, which came into effect on August 20, 1992 (the **Licensing Regulation**). As was common with legislation of this time, the Licensing Regulation was passed without adequate consideration of transition provisions and contained numerous gaps. In an effort to address the problems in the Licensing Regulation, the Ministry of Natural Resources (the **MNR**) issued ministerial acts and instructions that attempted to clarify and, in some cases, modify the Licensing Regulation. Many of these acts contradicted the law and were beyond the scope of the MNR's authority, but subsoil licensees had no option but to deal with the MNR in relation to subsoil issues and comply with its ministerial acts and instructions. Thus, it is possible that licenses applied for and/or issued in reliance on the MNR's acts and instructions could be challenged by the prosecutor general's office as being invalid. In particular, deficiencies of this nature subject subsoil licensees to selective and arbitrary governmental claims.

Legislation on subsoil rights still remains internally inconsistent and vague, and the regulator's acts and instructions are often arguably inconsistent with legislation. Subsoil licensees thus continue to face the situation where both failing to comply with the regulator's acts and instructions and choosing to comply with them places them at the risk of being subject to arbitrary governmental claims, whether by the regulator or the prosecutor general's office. Our competitors may also seek to deny our rights to develop certain natural resource deposits by challenging our compliance with tender rules and procedures or compliance with license terms.

An existing provision of the law that a license may be suspended or terminated if the licensee does not comply with the significant or material terms of a license is an example of such a deficiency in the legislation. The MNR (including its successor agency since May 13, 2008, the Ministry of Natural Resources and Ecology) has not issued any interpretive guidance on the meaning of these terms. Similarly, under Russia's civil law system, court decisions interpreting these terms do not have any precedential value for future cases and, in any event, court decisions in this regard have been inconsistent. These deficiencies result in the regulatory authorities, prosecutors and courts having significant discretion over enforcement and interpretation of the law, which may be used to challenge our subsoil rights selectively and arbitrarily.

Moreover, during the tumultuous period of the transformation of the Russian planned economy into a free market economy in the 1990s, documentation relating to subsoil licenses was not properly maintained in accordance with administrative requirements and, in many cases, was lost or destroyed. Thus, in many cases, although it may be clearly evident that a particular enterprise has mined a licensed subsoil area for decades, the historical documentation relating to its subsoil licenses may be incomplete. If, through governmental or other challenges, our licenses are suspended or terminated we would be unable to realize our reserves, which could materially adversely affect our business, financial condition, results of operations and prospects.

Weaknesses relating to the Russian legal system and legislation create an uncertain investment climate.

Russia is still developing the legal framework required to support a market economy. The following weaknesses relating to the Russian legal system create an uncertain investment climate and result in risks with respect to our legal and business decisions:

inconsistencies between and among the Constitution, federal laws, presidential decrees and governmental, ministerial and local orders, decisions, resolutions and other acts;

rapid enactment of many laws and regulations resulting in their ambiguities and inconsistencies;

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continuing reforms in almost all legal matters;

conflict of corporate and securities laws, significant changes in the regulatory framework;

substantial gaps in the regulatory structure due to the delay or absence of implementing legislation;

the relative inexperience of judges in interpreting legislation and contradictory judicial interpretations of the law;

the lack of full independence of the judicial system;

a high degree of discretion or arbitrariness on the part of governmental authorities; and

still-developing bankruptcy procedures that are subject to abuse. See **Risks Relating to Our Financial Condition and Financial Reporting** We may become subject to bankruptcy procedures, which may result in the inability of holders of our shares and ADSs to recover any of their investments.

All of these weaknesses could affect our ability to protect our rights under our licenses and under our contracts, or to defend ourselves against claims by others. We make no assurances that regulators, judicial authorities or third parties will not challenge our compliance with applicable laws, decrees and regulations.

One or more of our subsidiaries could be forced into liquidation on the basis of formal non-compliance with certain requirements of Russian law, which could materially adversely affect our business, financial condition, results of operations and prospects.

Certain provisions of Russian law may allow a court to order liquidation of a Russian legal entity on the basis of its formal non-compliance with certain requirements during formation, reorganization or during its operation. There have been cases in the past in which formal deficiencies in the establishment process of a Russian legal entity or non-compliance with provisions of Russian law have been used by Russian courts as a basis for liquidation of a legal entity. For example, under Russian corporate law, if a Russian company's net assets calculated on the basis of the Russian accounting standards at the end of its third or any subsequent financial year, fall below its share capital, the company must decrease its share capital to the level of its net assets value or initiate a voluntary liquidation. In addition, if a Russian company's net assets calculated on the basis of the Russian accounting standards at the end of its second or any subsequent financial year, fall below the minimum share capital required by law, the company must initiate voluntary liquidation not later than six months after the end of such financial year. If the company fails to comply with either of the requirements stated above within the prescribed time limits, the company's creditors may accelerate their claims and demand reimbursement of applicable damages, and governmental authorities may seek involuntary liquidation of the company. Certain Russian companies have negative net assets mainly due to very low historical asset values reflected on their balance sheets prepared in accordance with the Russian accounting standards; however, their solvency, i.e., their ability to pay debts as they become due, is not otherwise adversely affected by such negative net assets. Currently, we have the following subsidiaries with total liabilities greater than total assets: Mechel-Steel Management, Mechel Trading House, Kaslinsky Architectural Art Casting Plant, Port Kambarka, VtorResource, Metallurgshakhtpetsstroy, Southern Kuzbass Coal Company, Mechel Mining Management,

Shakhtspetsstroy, Resurs-Ugol, Romantika, Port Mechel Vanino, Sky-Extra, Mechel-Remservice, Mechel-BusinessService, Maritime Cargo Shipping, Mecheltrans Management, Mecheltrans Vostok, Izhstal, Mecheltrans Auto and Mechel Vtormet.

If involuntary liquidation were to occur, then we may be forced to reorganize the operations we currently conduct through the affected subsidiaries. Any such liquidation could lead to additional costs, which could materially adversely affect our business, financial condition, results of operations and prospects.

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Selective government action could have a material adverse effect on the investment climate in Russia and on our business, financial condition, results of operations and prospects and the value of our shares and ADSs.

Governmental authorities in Russia have a high degree of discretion. Press reports have cited instances of Russian companies and their major shareholders being subjected to government pressure through prosecutions of violations of regulations and legislation which are either politically motivated or triggered by competing business groups.

In mid-2008, Mechel came under public criticism by the Russian government. Repeated statements were made accusing Mechel of using tax avoidance schemes and other improprieties. Ultimately the allegations regarding tax avoidance were not confirmed by the tax authorities, but the antimonopoly investigation resulted in imposition of a fine and issuance of a FAS directive regarding our business practices. See [Risks Relating to Our Business and Industry](#) Antimonopoly regulation could lead to sanctions with respect to the subsidiaries we have acquired or established or our prices, sales volumes and business practices.

Selective government action, if directed at us or our largest shareholder, could have a material adverse effect on our business, financial condition, results of operations and prospects and the value of our shares and ADSs.

Due to still-developing law and practice related to minority shareholder protection in Russia, the ability of holders of our shares and ADSs to bring, or recover in, an action against us may be limited.

In general, minority shareholder protection under Russian law derives from supermajority shareholder approval requirements for certain corporate actions, as well as from the ability of a shareholder to demand that the company purchase the shares held by that shareholder if that shareholder voted against or did not participate in voting on certain types of actions. Russian law does not expressly require obtaining prior consent for interested party transactions, unless persons specified by the law do not require it. See [Item 10. Additional Information](#) [Description of Capital Stock](#) [Rights attaching to common shares.](#) Disclosure and reporting requirements have also been enacted in Russia. Concepts similar to the fiduciary duties of directors and officers to their companies and shareholders are also expected to be further developed in Russian legislation; for example, amendments to the Russian Code of Administrative Offenses imposing administrative liability on members of a company's board of directors or management board for violations committed in the maintenance of shareholder registers and the convening of general shareholders' meetings. While these protections are similar to the types of protections available to minority shareholders in U.S. corporations, in practice, the enforcement of these and other protections has not been effective.

The supermajority shareholder approval requirement is met by a vote of 75% of all voting shares that are present at a general shareholders' meeting. Thus, controlling shareholders owning less than 75% of the outstanding shares of a company may hold 75% or more of the voting power if enough minority shareholders are not present at the meeting. In situations where controlling shareholders effectively have 75% or more of the voting power at a general shareholders' meeting, they are in a position to approve amendments to a company's charter, reorganizations, significant sales of assets and other major transactions, which could be prejudicial to the interests of minority shareholders. See [Risks Relating to Our Business and Industry](#) The concentration of our shares with our largest shareholders will limit your ability to influence corporate matters and transactions with largest shareholders may present conflicts of interest, potentially resulting in the conclusion of transactions on less favorable terms than could be obtained in arm's length transactions.

Shareholder liability under Russian legislation could cause us to become liable for the obligations of our subsidiaries.

The Civil Code and the Joint-Stock Companies Law generally provide that shareholders in a Russian joint-stock company are not liable for the obligations of the joint-stock company and bear only the risk of loss of their

investment. This may not be the case, however, when one entity is capable of determining decisions made by

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another entity. The entity capable of determining such decisions is deemed an effective parent. The entity whose decisions are capable of being so determined is deemed an effective subsidiary. Under the Joint-Stock Companies Law, an effective parent bears joint and several responsibility for transactions concluded by the effective subsidiary in carrying out these decisions if:

this decision-making capability is provided for in the charter of the effective subsidiary or in a contract between such entities; and

the effective parent gives obligatory directions to the effective subsidiary based on the above-mentioned decision-making capability.

In addition, an effective parent is secondarily liable for an effective subsidiary's debts if an effective subsidiary becomes insolvent or bankrupt due to the fault of an effective parent resulting from its action or inaction. This is the case no matter how the effective parent's ability to determine decisions of the effective subsidiary arises. For example, this liability could arise through ownership of voting securities or by contract. Other shareholders of the effective subsidiary may claim compensation for the effective subsidiary's losses from the effective parent which caused the effective subsidiary to take action or fail to take action knowing that such action or failure to take action would result in losses. Accordingly, we could be liable in some cases for the debts of our subsidiaries. This liability could have a material adverse effect on our business, financial condition, results of operations and prospects.

Shareholder rights provisions under Russian law could result in significant additional obligations on us.

As a general rule, Russian law provides that shareholders that vote against or do not participate in voting on certain matters have the right to request that the company redeem their shares at value determined in accordance with Russian law. The decisions of a general shareholders' meeting that trigger this right include:

decisions with respect to a reorganization;

consent or subsequent approval by shareholders of a major transaction, which involves property in excess of 50% of the balance sheet value of the company's assets calculated according to the Russian accounting standards, regardless of whether the transaction is actually consummated (including those which are simultaneously interested party transactions), except for transactions undertaken in the ordinary course of business;

the amendment of the company's charter or approval of a new version of the company's charter that limits shareholder rights; and

the amendment of the public company's charter which eliminates indication that the company is public, simultaneously with the decision on applying to the CBR on release from obligation to disclose information under the laws of the Russian Federation on securities and the decision on applying for delisting of shares and securities convertible into shares.

Our and our Russian subsidiaries' obligation to purchase shares in these circumstances, which is limited to 10% of our or the subsidiary's net assets, respectively, calculated in accordance with the Russian accounting standards at the time the matter at issue is voted upon, could have a material adverse effect on our business, financial condition, results of operations and prospects due to the need to expend cash on such obligatory share purchases.

The lack of a central and rigorously regulated share registration system in Russia may result in improper record ownership of our shares and ADSs.

Ownership of Russian joint-stock company shares (or, if the shares are held through a nominee or custodian, then the holding of such nominee or custodian) is determined by entries in a share register and is evidenced by extracts from that register. Currently, there is no single central registration system in Russia. Share registers can

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be maintained only by licensed registrars located throughout Russia. Regulations have been adopted regarding the licensing conditions for such registrars, as well as the procedures to be followed by licensed registrars when performing the functions of registrar. In practice, however, these regulations have not been strictly enforced, and registrars generally have relatively low levels of capitalization and inadequate insurance coverage. Moreover, registrars are not necessarily subject to effective governmental supervision. Due to the lack of a central and rigorously regulated share registration system in Russia, transactions in respect of a company's shares could be improperly or inaccurately recorded, and share registration could be lost through fraud, negligence or oversight by registrars incapable of compensating shareholders for their misconduct. This creates risks of loss not normally associated with investments in other securities markets. Furthermore, the depository, under the terms of the deposit agreements governing record keeping and custody of our ADSs, is not liable for the unavailability of shares or for the failure to make any distribution of cash or property with respect thereto due to the unavailability of the shares. See Item 10. Additional Information – Description of Capital Stock – Registration and transfer of shares.

Characteristics of and changes in the Russian tax system could materially adversely affect our business, financial condition, results of operations and prospects and the value of our shares and ADSs.

Generally, Russian companies are subject to numerous taxes. These taxes include, among others:

a profit tax;

a value-added tax (VAT);

a mineral extraction tax; and

property and land taxes.

Laws related to these taxes have been in force for a short period relative to tax laws in more developed market economies and few precedents with regard to the interpretation of these laws have been established. Global tax reforms commenced in 1999 with the introduction of Part One of the Tax Code of the Russian Federation, as amended (the **Russian Tax Code**), which sets general taxation guidelines. Since then, Russia has been in the process of replacing legislation regulating the application of major taxes such as the corporate profit tax, VAT and property tax with new chapters of the Russian Tax Code.

In practice, the Russian tax authorities generally interpret the tax laws in ways that rarely favor taxpayers, who often have to resort to court proceedings to defend their position against the tax authorities. Events within the Russian Federation suggest that the tax authorities may be taking a more assertive position in their interpretations of the legislation and assessments. Contradictory interpretations of tax regulations exist within government ministries and organizations at the federal, regional and local levels, creating uncertainties and inconsistent enforcement. Tax declarations and documentation such as customs declarations, are subject to review and investigation by relevant authorities, which may impose severe fines, penalties and interest charges. Generally, in a tax audit, taxpayers are subject to inspection with respect to the three calendar years which immediately preceded the year in which the audit is carried out. Previous audits do not completely exclude subsequent claims relating to the audited period because Russian tax law authorizes upper-level tax inspectorates to re-audit taxpayers which were audited by subordinate tax inspectorates. In addition, on July 14, 2005, the Russian Constitutional Court issued a decision that allows the statute

of limitations for tax liabilities to be extended beyond the three-year term set forth in the tax laws if a court determines that a taxpayer has obstructed or hindered a tax audit. As a result of the fact that none of the relevant terms are defined, tax authorities may have broad discretion to argue that a taxpayer has obstructed or hindered a tax audit and ultimately seek back taxes and penalties beyond the three year term. In some instances, new tax regulations have been given retroactive effect.

Since May 2009, in connection with the proposal expressed by the Russian President in his Budget Message regarding the budget policy for 2010-2012, an overhaul of the anti-avoidance mechanism of double tax treaties

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has begun. In November 2014, Russian legislation was significantly revised in order to prevent unlawful use of low-tax jurisdictions for tax evasion in the Russian Federation. The amendments in the legislation set out the rules for the taxation of income of a foreign organization that is deemed to be a controlled foreign company. A foreign organization is recognized as a controlled foreign company if it is not a tax resident of the Russian Federation and the participation interest of the controlling legal entities or individuals in the organization is more than 25%. The transition period provides for a gradual reduction in the size of non-taxable profit, in particular, 50 million rubles, 30 million rubles and 10 million rubles for 2015, 2016 and 2017 and thereafter, respectively. Starting with the profits of controlled foreign companies for 2015, these changes in tax regulations could increase the tax burden on companies which are recognized to be controlling of foreign companies. In addition, Russian companies are required to disclose information about controlled foreign companies to the Russian tax authorities. All of these measures are intended to ensure the transparency of economic transactions, including foreign trade transactions. Disclosure of beneficial ownership, beneficial recipients of income and tax residence of legal entities at their actual place of business is, according to the new legislation, a prerequisite for the application of tax preferences, including reduced tax rates under international double tax treaties. In July 2015, the Convention on Mutual Administrative Assistance in Tax Matters became effective. The Convention provides for the potential exchange of tax information, including simultaneous tax inspections with Member States of the Council of Europe and member countries of the Organization for Economic Co-operation and Development (OECD), which signed the convention, as well as for assistance in the collection of taxes on their territories. Furthermore, starting from June 30, 2014, the Federal Law No. 173-FZ entered into force, which regulates the procedure of interaction of financial market entities with foreign tax authorities, primarily within the bounds of the U.S. law Foreign Account Tax Compliance Act (FATCA).

On November 16, 2011, the Russian President signed the Law on Amendment of Part One and Part Two of the Tax Code of the Russian Federation in Connection with the Formation of a Consolidated Group of Taxpayers. The main provisions of the law came into force on January 1, 2012. The law provides for formation of a consolidated group of taxpayers for the purposes of profit tax calculation and payment on the basis of the combined business performance of the members of such group. However, the law sets forth a number of requirements for the formation of a consolidated group of taxpayers. Starting from 2013, 16 companies of our group have formed a consolidated group of taxpayers, with Mechel being a responsible party. The formation of the consolidated group of taxpayers allowed us to determine the taxable income with profit and loss offset of all the companies included in the consolidated group of taxpayers and to pay profit tax from total aggregate income under the consolidated group of taxpayers, starting from January 1, 2013. In 2014, there have been some changes in the composition of the consolidated group of taxpayers as a result the number of members has increased to 20 companies. Due to changes in Russian tax legislation, the consolidated tax base does not include any profit received from controlled foreign companies by a member of the consolidated group of taxpayers (such member being the controlling entity of such controlled foreign companies and the responsible party for paying profit tax in respect of the profits of controlled foreign companies irrespective of the profit tax of the consolidated group of taxpayers).

However, regardless of being a member of the consolidated group of taxpayers or not, Mechel and our Russian subsidiaries pay Russian taxes on dividends they receive from other companies in our group. The tax rate on dividend income amounts to 0% or 13% (depending on whether the recipient of dividends qualifies for Russian participation exemption rules) if being distributed to Russian companies, and 15% (or lower, subject to benefits provided by relevant double tax treaties) if being distributed to foreign companies which are not controlled foreign companies. Dividends from foreign companies to Russian companies are subject to a tax of 13%. Taxes paid in foreign countries by Russian companies may be offset against payment of these taxes in the Russian Federation up to the maximum amount of the Russian tax liability. In order to apply the offset, the company is required to confirm the payment of taxes in the foreign country. The confirmations must be authorized by the tax authority of the foreign country if taxes were paid by the company itself, and the confirmation must be authorized by the tax agent if taxes were withheld by the tax agent under foreign tax law or an international tax agreement.

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In 2017, due to changes in Russian tax legislation, the order of set-off of tax loss accumulated by Russian companies, including companies within the consolidated group of taxpayers significantly changed. Such changes may lead to an increase in the Mechel's tax burden. During the period from 2017 to 2020, the amount of recognized loss for previous tax periods cannot exceed 50% of the tax base of the current period. Since 2021, this limitation will cease to apply and the recognition of accumulated losses in full will be possible again. At the same time, the current 10-year limit on the transfer of losses is cancelled.

The limitation in the amount of recognized loss is also applied to the members of the consolidated group of taxpayers with respect to current year loss of its members. Such limitation equals to 50% of the consolidated tax base of the consolidated group of taxpayers for the current reporting (tax) period. In respect of losses incurred in previous tax periods (before January 1, 2017), the consolidated tax base of the current tax period may be reduced by the amount of such losses, but also by no more than 50%. These changes in accounting the loss of the consolidated group of taxpayers increase the tax burden on companies included in the consolidated group of taxpayers.

In addition, application of current Russian thin capitalization rules and the developing negative court practice on such disputes, especially at the level of the Presidium of the Supreme Arbitrazh Court of the Russian Federation and the Supreme Court of the Russian Federation, may require us to withhold dividend taxes in Russia upon payment of interest on loans. In particular, taking into account the requirements of Russian law and negative court practice on thin capitalization, part of the interest on borrowings of our subsidiaries which are either received from Mechel or received from independent banks and guaranteed by Mechel may be classified as dividends and may not be treated as expenses for tax purposes under certain conditions provided by thin capitalization rules. In February 2016, a law which significantly changes the current approach to thin capitalization rules application was adopted. We believe that thin capitalization rules are not applicable to Mechel's loans starting from May 2016. However, there could be no assurance that in case of change of the existing thin capitalization rules and the applicable practice we will not be subject to the risks specified above.

In accordance with amendments to the Russian Tax Code which entered into force on November 30, 2016, the tax authorities are entitled to seek in court payment of taxes by the company's dependent persons, including dependent individuals, for example, the owners, founders or shareholders of such company, if these persons received cash or property from the company which has outstanding tax amounts within the amounts received by them. Taking into account the requirements of Russian law and negative court practice at the level of the Constitutional Court of the Russian Federation, there could be no assurance that we will not be subject to the risks specified above.

The foregoing conditions create tax risks in Russia that are more significant than typically found in countries with more developed tax systems, imposing additional burdens and costs on our operations, including management resources. In addition to our tax burden, these risks and uncertainties complicate our tax planning and related business decisions, potentially exposing us to significant fines and penalties and enforcement measures despite our best efforts at compliance. See also [Risks Relating to the Russian Federation](#) [Legal risks and uncertainties](#) [Selective government action could have a material adverse effect on the investment climate in Russia and on our business, financial condition, results of operations and prospects and the value of our shares and ADSs.](#)

Differences in interpretation of transfer pricing rules in the jurisdictions in which we operate, as well as the lack of developed law enforcement practice with regard to the Russian transfer pricing rules expose our business to the risk of significant additional liabilities.

Transfer pricing rules control related party transactions pricing. The fundamental principle of the rules is the arm's length principle, according to which organizations must enter into transactions with related parties on the same terms as they would enter into transactions with independent parties.

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Transfer pricing rules apply in most countries in which we operate. Many countries participating in the OECD employ a unified approach to transfer pricing, however in certain jurisdictions, including Russia, transfer pricing rules have some specifics. As such, the tax authorities of different countries can take advantage of the ambiguous interpretation of transfer pricing rules which can lead to claims on their part or additional tax inspections. The Russian transfer pricing rules that entered into force on January 1, 2012 should help to achieve consistency between domestic rules and the OECD principles.

The Russian transfer pricing rules require taxpayers to notify the tax authorities on controlled transactions that are performed from January 1, 2012. Controlled transactions mean any transactions between related parties both domestic and cross-border as well as certain transactions between unrelated parties. The rules introduce specific pricing methods, and documentation requirements for proving market prices. Currently established practice in applying the rules only starts to develop and in some cases decisions are being pronounced not in favor of taxpayers, therefore we cannot predict what effect the transfer pricing rules will have on our business. If the tax authorities impose significant additional tax assessments as a result of changes in transfer pricing regulation and we are unable to successfully challenge them in court or make symmetrical adjustments provided by these rules, it could have a material adverse effect on our business, financial condition, results of operations and prospects.

Expansion of limitations on foreign investment in strategic sectors could affect our ability to attract and/or retain foreign investments.

On April 29, 2008, the Federal Law On the Procedure for Foreign Investment in Companies with Strategic Impact on the National Defense and Security of the Russian Federation was adopted. See Item 4. Information on the Company Regulatory Matters The Strategic Industries Law.

As our subsidiary Southern Urals Nickel Plant holds the subsoil license on land plots with nickel and cobalt ore deposits which are included in the official list of subsoil plots of federal importance published on March 5, 2009 in the Russian official newspaper *Rossiyskaya Gazeta* as amended (the **Strategic Subsoil List**), it qualifies as a Strategic Company and is subject to special regulation. Our subsidiaries Urals Stampings Plant and Port Posiet are included in the register of natural monopolies, and therefore are also Strategic Companies. Furthermore, entities producing and distributing industrial explosives are deemed to be Strategic Companies. Thus, our subsidiaries Yakutugol, Vzryvprom and Korshunov Mining Plant also qualify as Strategic Companies, as they hold licenses to carry out activities related to the handling of industrial explosives.

Therefore, any transfer, directly or indirectly, to a foreign investor or its group of entities (except for the transfer to a foreign investor controlled by the Russian Federation, the constituent entity of the Russian Federation and/or Russian nationals provided such Russian nationals are Russian tax residents and do not have other nationality) of a stake or certain rights in or fixed assets (equal to 25% or more of the balance sheet value of the relevant entity) of Southern Urals Nickel Plant, Yakutugol, Vzryvprom, Korshunov Mining Plant, Urals Stampings Plant and Port Posiet, which, according to the Strategic Industries Law, is deemed to transfer control, as described in Item 4. Information on the Company Regulatory Matters The Strategic Industries Law, will be subject to prior approval from the state authorities. Likewise, a sale to a foreign investor or its group of entities of a stake in Mechel which provides control (as defined in the Strategic Industries Law) over Southern Urals Nickel Plant, Yakutugol, Vzryvprom, Korshunov Mining Plant, Urals Stampings Plant and Port Posiet, will also be subject to prior approval in accordance with the Strategic Industries Law.

In addition, in case a foreign investor or its group of entities which is a holder of securities of Southern Urals Nickel Plant, Yakutugol, Vzryvprom, Korshunov Mining Plant, Urals Stampings Plant and Port Posiet, becomes a holder of voting shares in amount which is considered to give them direct or indirect control over these companies in

accordance with the Strategic Industries Law due to the allocation of voting shares as a result of certain corporate procedures provided by Russian law (e.g., as a result of a buy-back by the relevant company of its shares, conversion of preferred shares into common shares, or holders of preferred shares becoming entitled

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to vote at a general shareholders meeting in cases provided under Russian law), such shareholders will have to apply for approval within three months after they acquired such control.

Furthermore, starting from July 2017 the Strategic Industries Law was amended so that production and sale of metals, alloys with special features or raw materials that are used in production of weapons and military equipment is also deemed a strategic activity. Considering the fact that the amendments are vague and ambiguous and may be construed broadly, certain other our group companies may be qualified as Strategic Companies.

In this connection, there is a risk that the requirement to receive prior or subsequent approvals and the risk of not being granted such approvals might affect our ability to attract foreign investments, create joint ventures with foreign partners with respect to our companies that qualify as Strategic Companies or effect restructuring of our group which might, in turn, materially adversely affect our business, financial condition, results of operations and prospects.

Land use rights regulation in Russia is subject to uncertainty and contradiction.

The main law governing the title to land is the Land Code of the Russian Federation introduced by the Federal Law On Introduction of the Land Code, dated October 25, 2001, as amended (the **Land Code**), which establishes the principles of land legislation and determines relations governed by land legislation.

Starting from 2015, the Land Code and a number of other legislative acts regulating the land use have been significantly amended in part concerning the procedure for allotment of land plots by public authorities to citizens and legal entities. Law enforcement practice, taking into account changes in the applicable legislation, is currently under development; therefore, risks associated with uncertainty of regulatory aspects of the allotment of land plots by public authorities exist.

In addition, there is a general risk of seizure of land plots for state needs for the implementation of governmental programs and projects, which means creation and construction of complexes within the framework of such federal programs. Moreover, if the land plots owned or leased by us are found not to be in compliance with all applicable approvals, consents, registrations or other regulations, we may lose the use of such land plots.

The ambiguous interpretation of land law and/or a potential seizure of our land plots for state needs or for other reasons may have a material adverse effect on our business, financial condition, results of operations and prospects.

Item 4. Information on the Company

Overview

We are a vertically integrated group with revenues of RUB 299,113 million in 2017, RUB 276,009 million in 2016 and RUB 253,141 million in 2015, with operations organized into three industrial segments: mining, steel and power, each of which has a management company that performs the functions of respective executive management bodies of the companies within the segment, as described below.

Our group includes a number of logistical and marketing companies that help us to deliver and market our products. We have freight seaports in Russia on the Sea of Japan (Port Posiet) and on the Sea of Azov (Port Temryuk) and a freight river port on the Kama River, a tributary of the Volga River in central Russia (Port Kambarka). We have a fleet of freight railcars, locomotives and long-haul trucks, and operate a rail line to our Elga coal deposit in the Sakha Republic.

We have a network of overseas subsidiaries, branches, warehouses, service centers and agents to market our products internationally, and we have a Russian domestic steel retail and service subsidiary with regional offices in 45 cities throughout Russia.

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Mechel PAO is a public joint-stock company incorporated under the laws of the Russian Federation. From the date of our incorporation on March 19, 2003 until July 19, 2005, our corporate name was Mechel Steel Group OAO. We conduct our business through a number of subsidiaries. We are registered with the Federal Tax Service of the Russian Federation under main state registration number (OGRN) 1037703012896. Our principal executive offices are located at Krasnoarmeyskaya Street, 1, Moscow 125167, Russian Federation. Our telephone number is +7 495 221 8888. Our Internet addresses are www.mechel.com and www.mechel.ru. Information posted on our website is not a part of this document. We have appointed CT Corporation System, located at 111 Eighth Avenue, New York, New York 10011, as our authorized agent upon which process may be served for any suit or proceeding arising out of or relating to our shares, ADSs or the deposit agreements.

Mining Segment

Our mining segment produces metallurgical coal (coking coal, PCI and anthracite), steam coal, iron ore and iron ore concentrate, coke and chemical products.

The segment primarily consists of our coal, iron ore and coke production facilities in Russia. It also includes certain transportation and logistics facilities and engineering operations.

Our subsidiary Southern Kuzbass Coal Company and its subsidiaries operate coal mines located in the Kuznetsky basin, near Mezhdurechensk in Western Siberia. These mines include four open pit mines and three underground mines. Another of our subsidiaries, Yakutugol, operates coal mines located in the Sakha Republic in Eastern Siberia, consisting of three open pit mines. Yakutugol also holds subsoil licenses for three iron ore deposits, located in close proximity to its coal mining operations. In August 2013, we established Elgaugol which holds the subsoil license for the Elga coal deposit, located in the Sakha Republic in Eastern Siberia. Our mining segment also provides coal washing services to our coal mining subsidiaries.

Korshunov Mining Plant operates two open pit iron ore mines and a concentrating plant located near Zheleznogorsk-Ilimsky, a town in the Irkutsk region in Eastern Siberia.

The mining segment also produces significant amounts of coke, both for use by our subsidiaries in the steel segment and for sales to third parties. We have the flexibility to supply our own steel mills with our mining products or to sell such mining products to third parties, depending on price differentials between local suppliers and foreign and domestic customers.

In April 2008, we established Mechel Mining, a wholly-owned subsidiary, in which we consolidated coal, iron ore and coke assets of our mining segment (Southern Kuzbass Coal Company, Korshunov Mining Plant, Yakutugol, Moscow Coke and Gas Plant and Mechel Coke and certain other companies).

Mechel Mining Management, a wholly-owned subsidiary of Mechel Mining, acts as the sole executive body of our subsidiaries in the mining segment.

Steel Segment

Our steel segment produces and sells semi-finished steel products, long products of a wide range of steel grades, carbon and stainless flat steel products and high value-added metal products, including wire products, stampings and forgings, structural shapes, beams and rails.

Our steel segment production facilities in Russia include one integrated steel mill, one steel-making mill, a wire products plant and stampings and forgings mill in the southern Ural Mountains, a wire products plant in northwestern Russia near the border with Finland and a ferrosilicon plant in Eastern Siberia. We also have a wire products plant in Lithuania.

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Mechel-Steel Management, a wholly-owned subsidiary of Mechel, acts as the sole executive body of our main subsidiaries in the steel segment.

Our steel segment also includes our distribution network in Russia and abroad, which consists of Mechel Service and Mechel Service Global.

Power Segment

The power segment was formed in April 2007, when we acquired a controlling interest in Southern Kuzbass Power Plant located in Kaltan in the Kemerovo region, which sells electricity and capacity to the wholesale market. In June 2007, we acquired a controlling interest in Kuzbass Power Sales Company, the largest power distribution company in the Kemerovo region. Our power segment enables us to market high value-added products, such as electricity and heat energy, and to increase the power self-sufficiency of our mining and steel segments. Mechel Energo acts as the sole executive body of Southern Kuzbass Power Plant in our power segment.

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Competitive Strengths

Our main competitive strengths are the following:

Leading mining and metals group by production volume with strong positions in key businesses

We are the second largest coking coal producer and the third largest coking coal concentrate exporter by volume in Russia.

In 2017, we were the second largest coking coal producer in Russia, with a 16.9% share of total coking coal production by volume, according to the Central Dispatching Department of Fuel and Energy Complex (**Central Dispatching Department**), a Russian information agency reporting on the fuel and energy industry. In 2017, our export sales of coking coal concentrate were the third largest by volume among Russian companies, according to Metals & Mining Intelligence (**MMI**), a private information and research company.

We have a large coal reserve base and a broad-range offering of high-quality metallurgical coals, as well as steam coals of various grades.

Our total coal reserves amounted to 2,972.3 million tonnes as of December 31, 2017, as accounted pursuant to SEC Industry Guide 7.

Our coal reserves allow us to supply steel producers and coke makers globally with a wide range of coal grades to make quality metallurgical coke or to use in PCI-assisted and sintering-assisted steel manufacturing. In addition to metallurgical coals, we supply steam coals of various grades. In particular, Southern Kuzbass Coal Company produces semi-hard and semi-soft coking coal, PCI, anthracite and steam coal. Most of the coal grades of Southern Kuzbass Coal Company are exported. Yakutugol produces low-volatile hard coking coal used by customers both in the Asia-Pacific region and in Russia, as well as steam coal which is sold domestically to local municipal services and electric power stations and for export. Elgaugol produces high-quality hard coking coal of high-volatile content and steam coal which are primarily supplied for export. The ability to serve our customers with a broad range of metallurgical and steam coal grades gives us a competitive advantage in entering the new markets and establishing long-term relationships with the customers.

By production volume we are Russia's second largest producer of long steel products and Russia's largest producer of wire products.

According to Metal Expert, a source for global steel and raw materials market news and analytics, in 2017 by production volume we were Russia's second largest producer of long steel products (excluding square billets), second largest producer of reinforcement bars (rebar) and largest producer of wire rod. Our long steel products business has particularly benefited from the increased infrastructure and construction activity in Russia. Our share of Russia's total production volume of rebar in 2017 was 17.9%, according to Metal Expert. According to Metal Expert and Chermets, a Russian ferrous metals industry association (**Chermets**), we are Russia's fourth largest producer of special steel by production volume, accounting for 10.5% of Russia's total special steel output in 2017. Our product range in special steel is broader and more comprehensive than other Russian producers, giving us an added advantage in our markets. According to Metal Expert, we are Russia's largest producer of wire products by production volume, accounting for 21.5% of Russia's total wire products output in 2017.

High degree of vertical integration

Our steel segment is able to source most of its raw materials from our group companies, which provides a hedge against supply interruptions and market volatility.

We believe that our internal supplies of coke, iron ore concentrate and ferrosilicon give us advantages over other steel producers, such as higher stability of operations, better quality control of end products, reduced

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production costs, improved flexibility and planning latitude in the production of our steel and value-added steel products and the ability to respond quickly to market demands and cycles. In 2017, we were fully self-sufficient with respect to coke and ferrosilicon; we were approximately 71% self-sufficient with respect to iron ore concentrate; and we satisfied approximately 29% of our electricity needs internally. We believe that the level of our self-sufficiency in raw materials gives our steel business a competitive advantage.

We view our ability to source most of our inputs internally not only as a hedge against potential supply interruptions, but as a hedge against market volatility. From an operational perspective, since our mining and power assets produce the same type of inputs that our manufacturing facilities use, we are less dependent on third party vendors and less susceptible to supply bottlenecks. From a financial perspective, this also means that if the market prices of our steel segment's inputs rise, putting pressure on steel segment margins, the margins of our mining segment will tend to increase. Similarly, while decreases in commodity prices tend to reduce revenues in our mining segment, they also create an opportunity for increased margins in our steel business.

Furthermore, we work on improving the quality of our steel products and reducing the costs for raw materials. Depending on prevailing market conditions, we evaluate the efficiency of use of our own raw materials and the raw materials purchased from third parties to be able to generate additional income.

The ability to internally source our materials also gives us better market insight when we negotiate with our outside suppliers, and improves our ability to manage our raw materials costs.

Our logistics capability allows us to better manage infrastructure bottlenecks, to market our products to a broader range of customers and to reduce our reliance on trade intermediaries.

We are committed to maximum efficiency in delivering goods to consumers and have been actively developing our own logistics network. Using our own transportation capacity enables us to save costs as we are less exposed to market fluctuations in transportation prices and are able to establish flexible delivery schedules that are convenient for our customers. Our logistics capacities are currently comprised of two seaports (Port Posiet and Port Temryuk) and a river port (Port Kambarka), as well as freight forwarding companies (Mecheltrans, MecheltransVostok and Mecheltrans Auto) which manage rail and motor transportation of our products and carry out the overall coordination of our sea, rail and motor transportation logistics. These companies not only transport our products but also provide transportation services to third parties.

We own two seaports and a river port and we have our own rail rolling stock. Port Posiet in the Russian Far East, on the Sea of Japan, gives us easy access to the Asia-Pacific seaborne market and provides a delivery terminal for the coal mined by our subsidiaries Yakutugol and Elgaugol in Yakutia. We are in the process of the Port Posiet's modernization, which enabled us to expand the cargo-handling capacity of the port up to 7.0 million tonnes per annum. Port Temryuk on the Sea of Azov, an inlet of the Black Sea basin, is primarily used for coal and metal transshipment and provides us access to the emerging market economies of the Black Sea and Mediterranean basins. Port Kambarka on the Kama River in the Republic of Udmurtia (a Russian administrative region also known as Udmurtia) is connected to the Volga River basin and the Caspian Sea, by canal to the Don River and the Sea of Azov, as well as by the Volga-Baltic Route to the Baltic Sea. As of December 31, 2017, our subsidiaries Mecheltrans and Mecheltrans Auto owned and leased 11,263 freight transportation units, including 11,218 railcars and 45 long-haul trucks that we use to ship our products.

In June 2008, pursuant to the terms of our subsoil license for the Elga coal deposit we began construction of a private rail line, which we own and control subject to applicable regulation. In December 2011, we finished laying track for the rail line in accordance with the terms of the license. The 321 kilometer-long rail line is now in operation and we

are able to use it for transportation of coal currently produced at the Elga deposit. The rail line connects the Elga coal deposit with the Baikal-Amur Mainline (at the Ulak railway station), which, in turn, provides access to the Russian rail network, in general, and Pacific Ocean ports, in particular. We will further develop the rail line to increase its capacity in line with our coal production plans. We anticipate that the Elga rail

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line will not only provide an avenue for delivery of coal produced at the Elga coal deposit, but will eventually serve as the transport route for coal, iron ore and other raw materials mined in the adjacent deposits.

One of the lowest-cost metallurgical coal producers

According to CRU International Limited (**CRU**), our hard coking coal operations are in the first quartile of the global business cost curve (FOB basis). In 2017, approximately 93% of our coking coal production was mined from open pit mines, which we believe is one of the highest rates among our Russian competitors. Open pit coal mining is generally considered safer, cheaper and faster than the underground method of mining. Most of our mines and processing facilities have long and established operating histories. We view strict cost management and increases in productivity as fundamental aspects of our day-to-day operations, and continually reassess and improve the efficiency of our mining operations.

Strategically positioned to supply key growth markets

Our mining and logistical assets are well-positioned to expand sales to the Asia-Pacific seaborne market.

Eastern Siberian coal mines of Yakutugol and Elga coal deposit, which are part of our mining segment, are strategically located and will enable us to expand exports of our products to key Asian markets. Yakutugol and Elgaugol are located within the shortest distance among Russian coking coal producers to Port Posiet and Port Vanino in the Russian Far East. We view the proximity of these mining and logistical assets to the Asian economies as one of the key competitive advantages which allow us to diversify our sales, provides us with additional growth opportunities and acts as a hedge in the event of a decrease in demand from customers in Russia. Moreover, due to our integration, experience and location in Russia, which has some of the largest deposits of coal and iron ore in the world, we are better positioned than many of our international peers to secure future production growth.

Our steel mills are well-positioned to supply Russian infrastructure projects.

Russia is our core steel market and we have significant domestic market shares in main types of carbon and special steel long products. We believe we have established a strong reputation and brand image for Mechel within Russia, just as we have with our international customers. The location of a number of our core steel segment assets in the southern Urals positions us advantageously, from a geographical and logistical perspective, to serve the areas in the west of the Urals as this region is a large consumer of long steel products in Russia, according to Metal Expert. The construction industry has been a major source of our revenue and we have captured a large portion of the market. According to Metal Expert, our share of Russia's total production volume of rebar in 2017 was 17.9%.

Established distribution and sales platform

Our sales and distribution activities in relation to exports of mining products are conducted by our Swiss subsidiary Mechel Carbon. Mechel Carbon is customer oriented and experienced in the trade of metallurgical coals, coke and chemical products. Mechel Carbon sales accounted for 75.5% of our mining segment sales and 25.3% of our total sales in 2017.

We also have a distribution network consisting of Mechel Service and Mechel Service Global which conduct sales of our steel products in Russia, the CIS and Europe. Through our distribution network in Russia and the CIS we sell a whole range of steel products manufactured by our plants. In case of sales to the European Union, we focus on sales of high value-added products, primarily high-quality rolled steel products, forgings and structural shapes produced by our Urals plants, through Mechel Service Belgium. Our companies in Germany, Austria and the Czech Republic

provide customers with a wide range of services for metal processing. Mechel Service and Mechel Service Global sales accounted for 49.6% of our steel segment sales and 28.6% of our total sales in 2017.

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Our direct access to end customers allows us to obtain real-time market intelligence and improve production planning at our steel facilities, which in turn allows us to improve the efficiency of our existing operations through the optimization of our sales structure.

Strong and focused management team

Our current management team has significant experience in all aspects of our businesses. Mr. Zyuzin, one of the founders of our group and our Chairman and largest shareholder, has led our successful transformation from a small coal trading operation to a large integrated mining and metals group. Mr. Zyuzin has over 30 years of experience in the coal mining industry and holds a Ph.D. in technical sciences in the coal mining field. Our divisional management also has long-tenured experience in the mining and metals industry. See Item 6. Directors, Senior Management and Employees Directors and Executive Officers.

Business Strategy

Our goal is to become one of the largest producers of metallurgical coal and steel products by realizing potential of the vertical integration and maximizing synergies between our performing assets underlying our business model.

Our strategy is aimed at extracting the maximum value from our mining and steel assets. We intend to concentrate on efficiency improvements and modernization of the business lines, which we expect will increase the business overall profitability.

In the mining segment, we will continue to develop our existing coal reserves, particularly in order to sell more high-quality metallurgical coal and coal products to third parties. We intend to prioritize the development of the Elga coal deposit, one of the largest global metallurgical coal reserves. Our coking coal and iron ore production form a solid platform for our steel business. Steam coal can be used to feed our power generating business which enables us to market high value-added products, such as electricity and heat energy, and to increase the power self-sufficiency of our mining and steel segments. However, even as we develop our internal sourcing capability, we intend to adhere to our long-standing approach of purchasing inputs from third party suppliers and selling products, including raw materials, to domestic and international customers to create the most advantageous profit opportunities for our group.

In the steel segment, we plan to focus on the Russian rail, engineering and construction markets. The launch of the universal rail and structural rolling mill at Chelyabinsk Metallurgical Plant allowed us to widen our portfolio of high value-added products such as structural shapes and rails, as well as significantly improve our competitive advantage as a full product range supplier to the construction sector and as an important supplier to Russian Railways. In 2015, we successfully went through the certification of rail products resulting in obtainment of three certificates of conformity of the Customs Union. The increase in sales volume of the universal rolling mill products will occur along with the development and certification of new types of products and will enable us to realize the import substitution strategy. We intend to increase our group's output and improve the quality of high value-added metal products in order to preserve our leadership in special and stainless steels and wire products in Russia. For some of these products, we hold a unique market niche, which serves as the basis for further improvement of our market share and growth of our customer base.

Our sales and distribution network provides us with a strong platform for further development of our sales. In the current economic situation, we are capable to quickly respond to changing market conditions and if necessary redirect deliveries of our products not only in Russia but abroad, thereby allowing us to obtain additional profit.

Another strategic priority is development of our logistics capabilities. Our own railcar fleet is to ensure the balance between transportation security and cost efficiency. Development of the cargo-handling capacity of Port

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Posiet is crucial for continuous shipments of our coal products in the Asia-Pacific region. Growing production of export-oriented coal in our mining segment will require further expansion of port capacities on our main export routes.

With focus on efficiency improvements of our main businesses, we may also consider selective disposal of assets in order to minimize possible costs, as well as attract financial or strategic investors to our key assets in order to reduce the debt burden and contribute to business development.

Our History and Development

We trace our beginnings to a small coal trading operation in Mezhdurechensk in the southwestern part of Siberia in the early 1990s. See Item 5. Operating and Financial Review and Prospects History of Incorporation. Since that time, through strategic acquisitions in Russia and abroad, Mechel has developed into one of the world's leading mining and metals companies, comprising producers of coal, iron ore, coke, steel, rolled products, ferrosilicon, heat energy and electricity, with operations and assets in Russia, the CIS and Europe. We intend to retain a controlling voting interest in each of our subsidiary holding companies as we continue to build upon our business model of vertical integration among our assets.

Mining Segment

Our mining segment produces coking coal and other types of metallurgical coal (anthracite and coal for pulverized, or finely crushed, coal injection (PCI)), steam coal, middlings, coking coal and steam coal concentrates, as well as coke and chemical products, iron ore and iron ore concentrate. Our mining segment also includes certain transportation and logistics facilities and engineering operations. Our coal operations consist of Southern Kuzbass Coal Company, Yakutugol and Elgaugol, which together produced 12.7 million tonnes of raw coking coal, 5.7 million tonnes of raw steam coal and 2.2 million tonnes of raw anthracite in 2017. Our coke operations consist of Moscow Coke and Gas Plant and Mechel Coke, which together produced 2.8 million tonnes of coke in 2017. Our iron ore operations consist of Korshunov Mining Plant which produced 8.0 million tonnes of iron ore and 2.5 million tonnes of iron ore concentrate in 2017.

Description of key products

Coking coal and metallurgical coal. Southern Kuzbass Coal Company produces high-quality bituminous coal, which is washed to reduce the ash content. The premier product is a high-quality, low phosphorous, low sulfur semi-soft to semi-hard coking coal used to produce coke for the iron and steel industry. Other products produced by Southern Kuzbass Coal Company include PCI and anthracite. Yakutugol produces hard coking coal of low-volatile content. Elgaugol produces high-quality hard coking coal of high-volatile content.

Steam coal. Southern Kuzbass Coal Company, Yakutugol and Elgaugol produce high-energy steam coal as part of their product mix. Steam coal is primarily used for the generation of electricity in coal-fired power stations.

Coke. Coke is used in the blast furnace as a main source of heat, a reducing agent for iron and a raising agent for charging material in the smelting process. It is a product prepared by pyrolysis (heating in the absence of oxygen) of low-ash, low-phosphorus and low-sulfur coal charging material. We offer customers coke from our Moscow Coke and Gas Plant and Mechel Coke.

Chemical products. Chemical products are hydrocarbon products obtained as a by-product of the production of coke. We produce chemical products in our subsidiaries Moscow Coke and Gas Plant and Mechel Coke. We offer our customers coal tar, coal benzene and other compounds. Worldwide, coal tar is used in diverse applications, including

in the production of electrode pitch, pitch coke, coal-tar oils, naphthalene, as well as boiler fuel. Coal benzene is used by the chemical industry to produce chemical compounds used as raw materials in organic synthesis in the production of synthetic fibres, as well as in the paint and varnish industry.

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Iron ore concentrate. From our Korshunov Mining Plant we offer iron ore concentrate with a standard iron content of 62%. Yakutugol holds subsoil licenses for three iron ore deposits located in Yakutia. These deposits contain high-quality iron ore, which will allow to produce iron ore concentrate with 65% iron content.

Mining process

Coal. At our Russian mines, coal is mined using open pit or underground mining methods. Following a drilling and blasting stage, a combination of shovels and draglines is used for moving coal and waste at our open pit mines. Production at the underground mines is predominantly from longwall mining, a form of underground coal mining where a long wall of coal in a seam is mined in a single slice. After mining, depending upon the amount of impurities in the coal, the coal is processed in a washing plant, where it is crushed and impurities are removed by gravity methods. Coking coal concentrate is then transported to coking plants for conversion to coke for use in pig iron smelting at steel plants. Steam coal is shipped to power utilities which use it in furnaces for steam generation to produce electricity. Among the advantages of our mining business are the high quality of our coking coal and the low level of volatile matter in our steam coal.

Iron ore. At our Korshunov Mining Plant, ore is mined using the open pit mining method. Following a drilling and blasting stage, ore is hauled by dump trucks and dumping cars to the concentrating plant. At the concentrating plant, the ore is crushed and ground to a fine particle size, then separated into an iron ore concentrate slurry and a waste stream using wet magnetic separators. The iron ore is upgraded to a concentrate that contains about 62% elemental iron. Tailings are pumped to a tailings dam facility located adjacent to the concentrating plant. The concentrate is sent to disk vacuum filters which remove the water from the concentrate to reduce the moisture level, enabling shipment to customers by rail during warmer months; in colder periods the concentrate must be dried further to prevent freezing in railcars. Korshunov Mining Plant operates its own drying facility with a dry concentrate production capacity of up to 16,000 tonnes per day. In 2011-2012, Yakutugol obtained subsoil licenses for the Pionerskoye iron ore deposit, the Sutamskaya iron ore area and the Sivaglinskoye iron ore deposit in Yakutia.

Coal production

Our coal production consists of the following mines in Russia:

Subsidiary (Location)	Surface	Underground
Yakutugol (Sakha Republic, Russia)	Neryungrinsky Open Pit Kangalassky Open Pit Dzhebariki-Khaya Open Pit	
Elgaugol (Sakha Republic, Russia)	Elga Open Pit	
Southern Kuzbass Coal Company (Kuzbass, Russia)	Sibirginsky Open Pit Tomusinsky Open Pit Olzherassky Open Pit Krasnogorsky Open Pit	V.I. Lenina Underground Sibirginskaya Underground Olzherasskaya- Novaya Underground

Our coal mines are primarily located in the Kuznetsky basin, a major Russian coal-producing region, and in the Sakha Republic in Eastern Siberia.

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The table below summarizes our run-of-mine (ROM) coal production by type of coal and location of mines for the periods indicated.

	2017		2016		2015	
	Tonnes	% of Production	Tonnes	% of Production	Tonnes	% of Production
	(In millions of tonnes) ⁽¹⁾					
Coking Coal						
Yakutugol	7.3		8.9		7.8	
Elgaugol	3.5		2.8		2.6	
Southern Kuzbass Coal Company	1.9		2.5		3.4	
Total Coking Coal	12.7	61.6%	14.2	62.7%	13.8	59.5%
Steam Coal						
Yakutugol	1.0		1.0		1.4	
Elgaugol	0.7		0.9		1.3	
Southern Kuzbass Coal Company	4.0		4.2		4.2	
Total Steam Coal	5.7	27.7%	6.1	26.8%	6.9	29.7%
Anthracite						
Yakutugol						
Elgaugol						
Southern Kuzbass Coal Company	2.2		2.4		2.5	
Total Anthracite	2.2	10.7%	2.4	10.5%	2.5	10.8%
Total Coal	20.6	100%	22.7	100%	23.2	100%

(1) Volumes are reported on a wet basis.

The coking coal produced by our Russian mines is predominately low-sulfur (0.3%) bituminous coal. Heating values for coking coal range from 6,861 to 8,488 kcal/kg on a moisture- and ash-free basis. Heating values for steam coal range from 6,627 to 8,286 kcal/kg on a moisture- and ash-free basis.

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The table below summarizes our saleable coal production by type of coal and location of mines for the periods indicated.

	2017		2016		2015	
	Tonnes	% of Production	Tonnes	% of Production	Tonnes	% of Production
	(In millions of tonnes)					
Coking Coal						
Yakutugol	4.6	28%	5.9	30%	5.1	25%
Elgaugol	1.6	10%	1.6	8%	1.6	8%
Southern Kuzbass Coal Company	1.8	11%	3.1	16%	2.7	13%
Total Coking Coal	8.0	49%	10.6	54%	9.4	46%
PCI						
Yakutugol						
Elgaugol						
Southern Kuzbass Coal Company	1.3	8%	1.4	7%	2.0	9%
Total PCI	1.3	8%	1.4	7%	2.0	9%
Anthracite						
Yakutugol						
Elgaugol						
Southern Kuzbass Coal Company	1.5	9%	1.8	9%	2.1	10%
Total Anthracite	1.5	9%	1.8	9%	2.1	10%
Steam Coal						
Yakutugol	2.7	17%	3.2	17%	3.5	17%
Elgaugol	1.2	7%	1.3	7%	1.6	8%
Southern Kuzbass Coal Company	1.7	10%	1.2	6%	2.0	10%
Total Steam Coal	5.6	34%	5.7	30%	7.1	35%
Total Coal	16.4	100%	19.5	100%	20.6	100%

Yakutugol mines

Our Yakutugol coal mines are located in the Sakha Republic. The Sakha Republic is located in Eastern Siberia and covers an area of 3.1 million square kilometers. It has a population of fewer than one million inhabitants. Its capital, Yakutsk, is located on the Lena River in south central Yakutia.

Our Yakutugol mines include three open pit mines: Neryungrinsky Open Pit, Kangalassky Open Pit and Dzhebariki-Khaya Open Pit. Neryungrinsky Open Pit is located in the South-Yakutsky basin which covers an area of 25,000 square kilometers and lies near the southern border of Yakutia. Neryungrinsky Open Pit is located near the town of Neryungr, one of the main industrial centers of Yakutia and its second largest city. Kangalassky Open Pit and Dzhebariki-Khaya Open Pit are located in the Lensky basin which covers an area of 750,000 square kilometers and lies near Yakutsk.

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The table below sets forth certain information regarding the subsoil licenses for our Yakutugol coal mines.

Mine	License (plot)	Area (sq. km)	Mining Method	Life of Mine	License Expiry Date	Status ⁽¹⁾	Year Production Commenced	Surface Land Use Rights
Neryungrinsky Open Pit	12336	15.3	Open pit	2029	Dec 2024	In production	1979	Ownership
	(Moshchny seam)							
Kangalassky Open Pit	15017	7.7	Open pit	2100	Dec 2027	In production	1962	Ownership
	(Kangalassk)							
Dzhebariki-Khaya Open Pit	15061	1.1	Open pit	2036	Dec 2023	In production	2017	Ownership
	(Dzhebariki-Khaya)							

(1) In production refers to sites that are currently producing coal.

The earliest production at our Yakutugol mines was in 1962, although we acquired these mines and license areas in October 2007. Neryungrinsky Open Pit produces low-volatile hard coking coal and steam coal which are sold primarily in the Asia-Pacific region and domestically. Neryungrinsky Open Pit has a railway spur connected to the Russian rail system, which is controlled by Russian Railways. Kangalassky Open Pit produces steam coal that is generally sold as fuel for boiler plants in Yakutia. It is accessible through an all-weather road from Kangalassy and through a highway from Yakutsk. Dzhebariki-Khaya Open Pit produces steam coal, most of which is sold to state housing and municipal services. Dzhebariki-Khaya Open Pit is accessible only by means of the Aldan River.

The table below summarizes ROM coal production of our Yakutugol mines by mine and type of coal for the periods indicated.

Mine	2017		2016		2015	
	Tonnes	% of Total Production	Tonnes	% of Total Production	Tonnes	% of Total Production
Coking Coal						
Neryungrinsky Open Pit	7.3		8.9		7.8	
Total Coking Coal	7.3	88.0%	8.9	89.9%	7.8	84.9%
Steam Coal						
Neryungrinsky Open Pit	0.7		0.4		0.7	
Dzhebariki-Khaya Open Pit ⁽²⁾	0.2		0.4		0.5	
Kangalassky Open Pit	0.1		0.2		0.2	
Total Steam Coal	1.0	12.0%	1.0	10.1%	1.4	15.1%

Total Coal	8.3	100%	9.9	100%	9.2	100%
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- (1) Volumes are reported on a wet basis.
- (2) The data included for the years ended December 31, 2016 and 2015 refers to Dzhebariki-Khaya Underground, mining operations of which were discontinued in August 2016.

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The table below sets forth coal sales volumes of our Yakutugol mines by type of coal and destinations for the periods indicated.

Coal Type	Region	2017	2016	2015
		(In thousands of tonnes)		
Coking coal	Asia	3,307.1	3,942.6	3,609.7
	Russia	786.2	1,136.1	894.5
	CIS	13.2	22.3	9.8
	Europe	2.2	19.1	0.5
Total		4,108.7	5,120.1	4,514.5
Steam coal	Russia	930.5	703.2	776.8
	Asia	498.1	622.5	124.7
Total		1,428.6	1,325.7	901.5
Middlings	Russia	1,087.9	1,758.9	1,647.9
	Asia	732.1	459.4	476.1
Total		1,820.0	2,218.3	2,124.0
Total		7,357.3	8,664.1	7,540.0

Elgaugol mine

Our Elga Open Pit is located in the South-Yakutsky basin of the Toko Coal-Bearing region in the Sakha Republic. This coal region was first discovered and explored in 1952 with the first geological surveys being conducted in 1954 through 1956. The closest inhabited localities are Verkhnezeysk village, located 320 kilometers south of the deposit, and the town of Neryungri, located 415 kilometers to the west. Since 1998, there have been several studies on the Elga coal deposit, including geology and resources, mine planning and feasibility studies. Overburden removal at the Elga deposit commenced in November 2010. Coal mining at Elga Open Pit commenced in August 2011.

Our subsidiary Elgaugol was established on August 14, 2013 under the laws of the Russian Federation for raising project financing from Vnesheconombank. Elgaugol holds the subsoil license for the Elga coal deposit.

The table below sets forth certain information regarding the subsoil license for our Elgaugol mine.

Mine	License (plot)	Area (sq. km)	Mining Method	Life of Mine	License Expiry Date	Status ⁽¹⁾	Year Production Commenced	Surface Land Use Rights
Elga Open Pit	03730 (Elga)	144.1	Open pit	2100	Dec 2033	In production	2011	Lease

(1) In production refers to sites that are currently producing coal.

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Elga Open Pit produces two types of coal: high-quality hard coking coal (high-volatile) and steam coal. It also produces middlings (by-product of the coking coal washing process). Coking coal and steam coal are sold primarily in the Asia-Pacific market with transshipment in ports of the Russian Far East.

The table below summarizes ROM coal production of our Elgaugol mine by type of coal for the periods indicated.

Mine	2017		2016		2015	
	Tonnes	% of Total Production	Tonnes	% of Total Production	Tonnes	% of Total Production
Coking Coal						
Elga Open Pit	3.5		2.8		2.6	
Total Coking Coal	3.5	83.3%	2.8	75.7%	2.6	66.7%
Steam Coal						
Elga Open Pit	0.7		0.9		1.3	
Total Steam Coal	0.7	16.7%	0.9	24.3%	1.3	33.3%
Total Coal	4.2	100%	3.7	100%	3.9	100%

(1) Volumes are reported on a wet basis.

The table below sets forth coal sales volumes of our Elgaugol mine by type of coal and destinations for the periods indicated.

Coal Type	Region	2017	2016	2015
		(In thousands of tonnes)		
Coking coal	Asia	426.3	242.6	11.8
Total		426.3	242.6	11.8
Steam coal	Asia	1,088.8	1,429.2	1,201.5
	Russia	1.0	1.2	209.0
Total		1,089.8	1,430.4	1,410.5
Middlings	Asia	0.0	0.0	152.8
Total		0.0	0.0	152.8
Total		1,516.1	1,673.0	1,575.1

In 2009, the general scheme of the Elga coal complex development and the plan for initial mine block development were prepared. The plan for initial mine block development was subsequently approved by governmental authorities. In 2011, the project documentation of the first stage of the Elga coal complex construction was prepared and subsequently approved by governmental authorities.

In December 2011, we finished laying track for the rail line to the Elga deposit. The 321 kilometer-long rail line is now in operation and we are able to use it for transportation of coal produced at Elga Open Pit. The rail line connects Elga Open Pit with the Baikal-Amur Mainline (at the Ulak railway station), which, in turn, provides access to the Russian rail network, in general, and Pacific Ocean ports, in particular. We will further develop the rail line to increase its capacity in line with our production plans. In March 2016, we contributed the Ulak-Elga rail line to the registered capital of the newly established company Elga-road OOO.

In October 2012, we launched a pilot seasonal washing plant for Elga Open Pit with a seasonal capacity of 2.0 million tonnes per annum. In late 2014, we completed the transfer of the pilot seasonal washing plant to year-round operation with a designed capacity of up to 2.7 million tonnes per annum.

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Currently, Elga has an electricity substation with diesel power generators with a total installed capacity of 9 megawatts (**MW**). Federal Grid Company, the state-owned operator of the unified national electric grid, is installing high-voltage transmission lines to deliver electricity from the Zeysky hydro power plant located 270 kilometers from the site, and we are constructing electricity-receiving infrastructure capable of receiving of up to 134 MW. We expect to start receiving electricity from this power plant in the second quarter of 2018.

In accordance with the order of the Federal Agency for Subsoil Use (**Rosnedra**) No. 177 dated February 27, 2015 On the conducting of a one-time updating of subsoil licenses, we filed an application with the Department for Subsoil Use for the Sakha Republic (Yakutia) regarding conduct of an update procedure relating to the terms of the subsoil license for the Elga coal deposit. In December 2015, the Department for Subsoil Use for the Sakha Republic (Yakutia) made a decision to update the existing terms and issued an amendment to the subsoil license. The amendments provide that the level of coal extraction and deadlines of reaching the design capacity are determined by the deposit development technical plan. In September 2016, based on the decision of Rosnedra the subsoil license for the Elga coal deposit was extended until December 31, 2033.

In the event of significant deviations from the design solutions, we can prepare and duly approve the adjustment of the current technical plan in order to avoid violation of the terms of subsoil use. Thus, the amended license terms allow us to manage licensing risks by adjusting the project documentation which significantly reduces the risk of suspension of the subsoil license in the event of a deviation from the design solutions. See also Item 3. Key Information Risk Factors Risks Relating to Our Business and Industry The development of the Elga coal deposit is subject to certain risks due to the substantial amount of capital costs involved in developing the required infrastructure.

Southern Kuzbass mines

The Kuznetsky basin, or Kuzbass, is located in the southeastern part of Western Siberia and is one of the largest coal mining areas in the world, covering an area of around 70,000 square kilometers. Coal-bearing seams extend over an area of 26,700 square kilometers and reach a depth of up to 1,800 meters. Coal was discovered in 1721, and systematic mining started in 1851. During the Soviet era, Kuzbass was the second largest regional coal producer. According to the Central Dispatching Department, Kuzbass (Kemerovo region) now accounts for 59% of Russia's total coal production.

All of our Southern Kuzbass mines are located in southeast Kuzbass around the town of Mezhdurechensk in the Kemerovo region, with the exception of the Yerunakovskaya mine area, which is located about 100 kilometers northwest of Mezhdurechensk.

The earliest production at our Southern Kuzbass mines was in 1953, although we acquired these mines and license areas starting in the 1990s. The Southern Kuzbass mines include four open pit mines and three underground mines: Sibirginsky Open Pit, Tomusinsky Open Pit, Olzherassky Open Pit, Krasnogorsky Open Pit, V.I. Lenina Underground, Sibirginskaya Underground and Olzherasskaya-Novaya Underground.

Our Southern Kuzbass mines and the related washing plants produce semi-soft and semi-hard coking coal, anthracite, PCI and steam coal. Our Kuzbass operations are connected by rail to the Trans-Siberian Mainline and substantially all products are shipped by rail. Products are generally shipped by rail to Russian customers, to northwestern Russian and Baltic ports for European customers, to Port Posiet and Port Vanino for export to Asia and to Port Temryuk for customers in the Black Sea and Mediterranean basins.

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The table below sets forth certain information regarding the subsoil licenses for our coal mines in Kuzbass, all of which are held by our subsidiary Southern Kuzbass Coal Company, unless otherwise noted.

Mine	License (plot)	Area (sq. km)	Mining Method	Life of Mine	License		Year Production Commenced	Surface Land Use Rights
					Expiry Date	Status ⁽¹⁾		
Krasnogorsky Open Pit	14016 (Tomsk, Sibirginsk)	22.4	Open pit	2055	Jan 2021	In production	1954	Lease
	13367 (Sorokinsk, Tomsk, Sibirginsk)	2.8			Nov 2025	In production	2012	Lease
Olzherassky Open Pit	01374 (Raspadsk, Berezovsk, Sosnovsk)	10.1	Open pit	2050	Dec 2029	In production	1980	Lease
	12939 (Raspadsk) ⁽²⁾	3.5			Dec 2024	Development	n/a	Lease
	12940 (Berezovsk-2, Berezovsk, Olzherassk)	4.8			Dec 2024	In production	2007	Lease
	01917 (Berezovsk Gluboky)	7.4			Aug 2035	Exploration and development	n/a	Lease
Tomusinsky Open Pit	13312 (Tomsk) ⁽³⁾	6.7	Open pit	2028	Dec 2020	In production	1959	Lease
Sibirginsky Open Pit	13639 (Sibirginsk, Kureinsk, Uregolsk)	16.4	Open pit	2055	Dec 2032	In production	1970	Lease
	01557 (New- Uregolsk)	2.4			Apr 2031	In production	2011	Lease
Sibirginskaya Underground	12917 (Sibirginsk, Tomsk)	5.9	Underground	2058	Dec 2024	In production	2002	Lease
	15463 (Sibirginsk-2, Sibirginsk, Kureinsk)	0.9			Dec 2032	In production	2014	Lease
	01914 (Sibirginsk-3)	7.6			Aug 2035	Exploration and development	n/a	Lease
V.I. Lenina Underground	14060 (Olzherassk)	10.0	Underground	2050	Dec 2032	In production	1953	Lease
	01701 (Granichny, Olzherassk)	1.2			Feb 2033	Exploration and development	n/a	Lease, Ownership
Olzherasskaya-Novaya Underground	14199 (Raspadsk)	1.2	Underground	2035	Dec 2021	In production	2008	Lease
	01471 (Olzherassk-2, Raspadsk)	0.2			Jan 2030	In production	2010	Lease
	13366	14.6			Nov 2025	In production	2010	Lease

	(Razvedochny, Raspadsk)								
Yerunakovskaya-1 Underground (project)	13237	8.4	Underground	2033	Jun 2025	Development	n/a	Lease	
	(Yerunakovsk-1, Yerunakovsk) ⁽⁴⁾								
Yerunakovskaya-3 Underground (prospect)	13238	7.1	Underground	2115	Jun 2025	Development	n/a		
	(Yerunakovsk-3, Yerunakovsk) ⁽⁴⁾								
Olzherasskaya-Glubokaya Underground (prospect)	13365 (Olzherassk) ⁽⁵⁾	19.2	Underground	2211	Nov 2025	Development	n/a		
Usinskaya Underground (prospect)	14093 (Olzherassk)	3.6	Underground	2071	Dec 2033	Conservation	n/a	Ownership	

- (1) In production refers to sites that are currently producing coal. Development refers to sites where preliminary work is being carried out. Exploration and development refers to sites where preliminary work and drilling for calculation of mineral reserves are being carried out. Conservation refers to sites where no mining activity is conducted, but measures for mine conservation are being taken.

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- (2) We failed to commence commercial production in 2009 as required by the subsoil license due to unfavorable mine economics. We expect to commence production at the Rapsadsk license area in the fourth quarter of 2018 provided coal prices recover sufficiently.
- (3) License held by Tomusinsky Open Pit, a subsidiary of Southern Kuzbass Coal Company.
- (4) We failed to commence commercial production in 2011 as required by the subsoil license due to unfavorable mine economics.
- (5) We failed to commence commercial production in 2012 as required by the subsoil license due to unfavorable mine economics.

The table below summarizes ROM coal production of our Southern Kuzbass mines by mine and type of coal for the periods indicated.

Mine	2017		2016		2015	
	Tonnes	% of Total Production	Tonnes	% of Total Production	Tonnes	% of Total Production
Coking Coal						
Sibirginsky Open Pit	0.2		0.2		0.5	
Tomusinsky Open Pit	0.4		0.8		0.8	
V.I. Lenina Underground	0.5		0.8		0.4	
Sibirginskaya Underground	0.4		0.2		1.1	
Olzherassky Open Pit	0.4		0.5		0.6	
Total Coking Coal	1.9	23.5%	2.5	27.5%	3.4	33.7%
Steam Coal						
Krasnogorsky Open Pit	1.7		1.8		2.7	
Sibirginsky Open Pit	0.3		0.3		0.5	
Olzherassky Open Pit	0.0		0.0		0.0	
Olzherasskaya-Novaya Underground	1.5		1.5		0.3	
Tomusinsky Open Pit	0.5		0.6		0.7	
Total Steam Coal	4.0	49.4%	4.2	46.1%	4.2	41.6%
Anthracite						
Krasnogorsky Open Pit	2.2		2.4		2.5	
Sibirginsky Open Pit						
Olzherassky Open Pit						
Olzherasskaya-Novaya Underground						
Tomusinsky Open Pit						
Total Anthracite	2.2	27.1%	2.4	26.4%	2.5	24.7%
Total Coal	8.1	100%	9.1	100%	10.1	100%

(1) Volumes are reported on a wet basis.

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The table below sets forth Southern Kuzbass mines' coal sales volumes by type of coal and destinations for the periods indicated.

Coal Type	Region	2017	2016	2015
		(In thousands of tonnes)		
Coking coal	Russia	0.0	242.0	492.2
	Asia	261.7	179.3	227.4
Total		261.7	421.3	719.6
Anthracite	Europe	971.4	892.6	1,241.2
	Other	61.2	255.9	73.4
	Asia	256.3	224.9	321.7
	CIS	54.6	108.6	68.2
	Russia	52.1	32.6	42.3
	Middle East ⁽¹⁾	0.0	0.0	14.9
Total		1,395.6	1,514.6	1,761.7
PCI	Asia	1,433.6	1,571.9	1,684.3
	Europe	0.0	37.8	473.5
	Middle East ⁽¹⁾	31.2	10.4	91.5
	CIS	0.0	0.0	0.0
	Russia	0.0	0.0	4.7
Total		1,464.8	1,620.1	2,254.0
Steam coal	Asia	1,001.9	845.6	122.2
	Middle East ⁽¹⁾	8.9	44.9	96.7
	Russia	12.2	12.7	30.4
	Europe	36.7	4.6	11.6
	CIS	0.0	0.0	15.5
Total		1,059.7	907.8	276.4
Total		4,181.8	4,463.8	5,011.7

(1) Includes Turkey only.

Coal washing plants

We operate six coal washing plants and one processing unit in Russia: four coal washing plants and one processing unit located near our coal mines in Southern Kuzbass, one coal washing plant located near Neryungrinsky Open Pit and one coal washing plant at Elga Open Pit.

Our four coal washing plants and one processing unit located near our coal mines in Southern Kuzbass have an aggregate annual capacity of approximately 17.3 million tonnes of ROM coal. These are Krasnogorskaya Washing Plant, Sibir Washing Plant, Tomusinskaya Washing Plant, Kuzbasskaya Washing Plant and Sibirginskaya Processing

Unit. These washing plants have aggregate storage capacity for saleable products of 142,700 tonnes, of which 34% is covered storage.

Neryungrinskaya Washing Plant located near Neryungrinsky Open Pit has an annual capacity of 9.0 million tonnes. The plant produces coking coal concentrate and middlings.

In October 2012, we launched a pilot seasonal washing plant for Elga Open Pit, which operated in the warmer months of April to October only, with a seasonal capacity of 2.0 million tonnes per annum. In late 2014, we completed the transfer of the pilot seasonal washing plant to year-round operation with a designed capacity of up to 2.7 million tonnes per annum.

In 2017, our washing plants enriched 18.4 million tonnes of our coal feedstock.

Table of Contents***Coke and chemical products production***

The following table lists the various types and grades of coke and chemical products we produce and sell. We also produce and sell coke gas.

Plant	Products
Moscow Coke and Gas Plant	Coke +60 mm, Coke +40 mm, Coke 25-40 mm, Coke nut 10-25 mm, Coke breeze 0-10 mm, Coal benzene, Coal tar, Coke gas
Mechel Coke	Coke +40 mm, Coke +25 mm, Coke 25-40 mm, Coke nut 10-25 mm, Coke breeze 0-10 mm, Coal benzene, Coal tar, Ammonium sulfate, Coke gas

We have two coke plants, one of which is located in the city of Chelyabinsk and the other in the Moscow region. Coke is prepared by pyrolysis (heating in the absence of oxygen) of low-ash, low-phosphorus and low-sulfur coal. Coke is used in the blast furnace as a main source of heat, a reducing agent for iron and a raising agent for charging material in the smelting process.

In addition, we produce coke nut, which is smaller in size than metallurgical coke and is principally used as a reducing agent in ferroalloys production and for other purposes, and coke breeze, which is even smaller in size and is principally used for sintering iron ore concentrate prior to its use in blast furnaces or as fuel. Coke production and sales volumes figures presented herein include, among others, coke nut and coke breeze. Additional chemical products, such as coal benzene, coal tar and ammonium sulfate, are obtained as by-products in the coke production process.

The table below summarizes our production of coke, chemical products and coke gas for the periods indicated.

	2017	2016	2015
	(Coke and chemical products in thousands of tonnes)		
	(Coke gas in millions of cubic meters)		
Mechel Coke			
Coke (6% moisture)	2,269	2,244	2,313
Chemical products	121	110	112
Coke gas	798	824	851
Moscow Coke and Gas Plant			
Coke (6% moisture)	561	742	723
Chemical products	29	38	38
Coke gas	237	328	319
Total			
Coke (6% moisture)	2,830	2,986	3,036
Chemical products	150	148	150
Coke gas	1,035	1,152	1,170

The table below summarizes our sales volumes of coke and chemical products for the periods indicated.

	2017	2016	2015
	(In thousands of tonnes)		
Coke	771	894	985
Chemical products	140	146	155

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The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for Moscow Coke and Gas Plant's principal production area.

Production Area	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
		(In thousands of tonnes)	
Coke (6% moisture)	646	86.8%	

The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for Mechel Coke's principal production area.

Production Area	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
		(In thousands of tonnes)	
Coke (6% moisture)	2,844	79.8%	

Our own production facilities purchase a substantial majority of our coke production. For the years ended December 31, 2017, 2016 and 2015, purchases of our coke by our own production facilities amounted to 1.9 million tonnes, 1.9 million tonnes and 1.9 million tonnes, respectively, which represented 71%, 68% and 66% of our total coke sales volumes (including intra-group sales) for those periods.

We purchase some coking coal from other producers in order to produce coke. The need to purchase coking coal from third parties for coke production varies from period to period, depending on customer demand for particular products and the availability of suitable coal grades from our own mines.

Iron ore and concentrate production

Our iron ore operations consist of Korshunov Mining Plant which operates Korshunovsky Open Pit, Rudnogorsky Open Pit and the Korshunovsky concentrating plant, and three subsoil licenses held by Yakutugol for the Pionerskoye iron ore deposit, the Sivaglinskoye iron ore deposit and the Sutamskaya iron ore area in Yakutia.

The Korshunovsky concentrating plant is located outside of the town of Zheleznogorsk-Ilinsky, 120 kilometers east of Bratsk in the Irkutsk region. Korshunovsky Open Pit is located near the concentrating plant and Rudnogorsky Open Pit is located about 85 kilometers to the northwest of the concentrating plant. We have operated these iron ore mines and the concentrating plant since 2003 when we acquired Korshunov Mining Plant. Both mines produce a magnetite ore (Fe₃O₄) and the concentrating plant produces iron ore concentrate with a standard iron content of 62%. Product is shipped by rail to our customers. All of the sites are served by regional public highways and a nearby federal motorway. The area is served by the Baikal-Amur Mainline, which connects the Trans-Siberian Mainline with China and Yakutia.

The table below sets forth certain information regarding the subsoil licenses for our iron ore mines, all of which are held by our subsidiary Korshunov Mining Plant.

Mine	License (plot)	Status⁽¹⁾
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		Area (sq. km)	Mining Method	License Expiry Date		Year Production Commenced	Surface Land Use Rights
Korshunovsky Open Pit	03333	4.3	Open pit	Dec 2026	In production	1965	Lease
	(Korshunovsk)						
Rudnogorsky Open Pit	03334	5.3	Open pit	Jan 2028	In production	1984	Ownership
	(Rudnogorsk)						

(1) In production refers to sites that are currently producing iron ore.

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The table below summarizes our ROM iron ore and iron ore concentrate production for the periods indicated.

Mine	2017		2016		2015	
	Tonnes	Grade (% Fe)	Tonnes	Grade (% Fe)	Tonnes	Grade (% Fe)
	(In millions of tonnes) ⁽¹⁾					
Korshunovsky Open Pit	3.6	23.2%	4.1	23.6%	3.3	24.2%
Rudnogorsky Open Pit	4.4	26.2%	4.1	27.9%	4.5	30.6%
Total ore production	8.0	24.8%	8.2	25.8%	7.8	27.9%
Iron ore concentrate production	2.5	62.8%	2.7	62.8%	2.7	63.2%

(1) Volumes are reported on a wet basis.

In 2011-2012, we obtained subsoil licenses for three iron ore deposits: the Pionerskoye deposit, the Sivaglinskoye deposit and the Sutamskaya area which are held by Yakutugol. The Pionerskoye deposit is located in Yakutia about 127 kilometers from the town of Neryungri. The area is well connected to the regional transportation network with a federal motorway located 5 kilometers to the east of the deposit. The Sivaglinskoye deposit is 120 kilometers away from Neryungri and located close to the Pionerskoye deposit. The Sutamskaya area is located 210 kilometers south-east of Neryungri. These deposits contain high-quality iron ore, which will allow to produce iron ore concentrate with 65% iron content.

The table below sets forth certain information regarding the subsoil licenses for our iron ore deposits, all of which are held by our subsidiary Yakutugol.

Deposit	License (plot)	Area (sq. km)	Mining Method	License Expiry Date	Status ⁽¹⁾	Year	Surface
						Production Commenced	Land Use Rights
Pionerskoye	03034 (Pionersk)	9.95	Open pit	Aug 2031	Exploration	n/a	Lease
Sivaglinskoye	03153 (Sivaglinsk)	2.23	Open pit	Mar 2022	Exploration	n/a	Lease
Sutamskaya area	03158 (Sutamskaya area)	731.32	Open pit	Mar 2037	No activity	n/a	

(1) Exploration refers to sites where drilling for calculation of mineral reserves is being carried out.

Sales of mining segment products

The following table sets forth sales of mining segment products (by volume) and as a percentage of total sales of these products (including intra-group sales) for the periods indicated.

Product	2017	2016	2015	2017	2016	2015
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	(In thousands of tonnes)⁽¹⁾			(% of total sales, including intra-group)		
Coking coal concentrate	4,796.8	5,784.0	5,246.0	60.4%	66.8%	63.9%
Steam coal and middlings	5,403.9	5,927.2	4,880.3	88.0%	84.7%	74.4%
PCI and Anthracite	2,865.0	3,139.0	4,066.7	93.1%	92.6%	94.0%
Iron ore concentrate	30.2	26.3	488.9	1.2%	1.0%	17.4%
Coke	770.6	893.5	984.8	28.7%	31.5%	33.8%
Chemical products	140.0	146.3	154.7	93.3%	96.4%	98.8%

(1) Includes resale of mining segment products purchased from third parties.

The following table sets forth revenues by product, as further divided between domestic sales and exports (including as a percentage of total mining segment revenues) for the periods indicated. We define exports as sales by our Russian and foreign subsidiaries to customers located outside their respective countries. We define

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domestic sales as sales by our Russian and foreign subsidiaries to customers located within their respective countries. See note 26 to the consolidated financial statements.

Product	2017		2016		2015	
	Amount	% of Revenues	Amount	% of Revenues	Amount	% of Revenues
	(In millions of Russian rubles, except for percentages)					
Coking coal concentrate	43,656.4	43.6%	38,743.9	43.2%	27,209.6	33.7%
Domestic Sales		20.4%		21.6%		28.0%
Export		79.6%		78.4%		72.0%
Steam coal	13,446.7	13.4%	12,587.3	14.1%	7,236.0	9.0%
Domestic Sales		15.2%		17.1%		30.0%
Export		84.8%		82.9%		70.0%
PCI and Anthracite	21,436.7	21.4%	18,737.1	20.9%	24,989.9	31.0%
Domestic Sales		2.3%		1.3%		1.3%
Export		97.7%		98.7%		98.7%
Middlings	5,800.9	5.8%	5,189.8	5.8%	4,750.5	5.9%
Domestic Sales		43.2%		68.0%		55.2%
Export		56.8%		32.0%		44.8%
Coke	11,379.3	11.4%	9,341.5	10.4%	9,428.9	11.7%
Domestic Sales		47.8%		64.1%		53.9%
Export		52.2%		35.9%		46.1%
Chemical products	2,367.9	2.4%	1,988.0	2.2%	2,327.4	2.9%
Domestic Sales		59.6%		54.8%		55.4%
Export		40.4%		45.2%		44.6%
Iron ore concentrate	220.2	0.2%	125.9	0.1%	1,844.0	2.3%
Domestic Sales		100.0%		100.0%		7.6%
Export		0.0%		0.0%		92.4%
Other ⁽¹⁾	1,821.2	1.8%	2,934.6	3.3%	2,846.0	3.5%
Total	100,129.3	100.0%	89,648.1	100.0%	80,632.3	100.0%
Domestic Sales		22.2%		25.4%		25.9%
Export		77.8%		74.6%		74.1%

(1) Includes revenues from transportation, distribution, construction and other miscellaneous services provided to local customers.

Marketing and distribution

In 2017, our Russian domestic sales were conducted directly by our own production facilities and our export sales were conducted by Mechel Carbon, based in Baar, Switzerland. We generally do not involve traders in the sales and distribution of our mining products and we have had long-standing relationships with end users of our mining products.

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The following table sets forth percentage of sales by the regions in which our mining segment products were sold for the periods indicated.

Region⁽¹⁾	2017	2016	2015
Asia	61.3%	58.2%	47.5%
Russia	22.2%	25.4%	25.9%
Europe	11.6%	11.3%	19.6%
CIS	2.5%	2.1%	2.7%
Middle East ⁽²⁾	2.0%	0.8%	3.2%
United States	0.0%	0.3%	0.3%
Other	0.4%	1.9%	0.8%
Total	100.0%	100.0%	100.0%

(1) The regional breakdown of sales is based on the geographic location of our customers, and not on the location of the end users of our products, as our customers are often distributors that resell and, in some cases, further export our products.

(2) Includes Turkey, the United Arab Emirates and Saudi Arabia.

The following table sets forth information about the five largest customers of our mining segment, which together accounted for approximately 37.6% of our total mining segment sales in 2017.

Customer	% of Total Mining Segment Sales	Product	% of Total Products Sales
POSCO	10.6%	PCI and Anthracite	22.1%
		Coking coal concentrate	13.3%
		Middlings	1.7%
Sojitz Corporation	9.7%	Coking coal concentrate	17.6%
		PCI and Anthracite	9.2%
		Steam coal	0.04%
Batek Resources	7.6%	Steam coal	50.3%
		Middlings	14.6%
MMK	5.0%	Coking coal concentrate	11.5%
		Iron ore concentrate	7.9%
ArcelorMittal	4.6%	PCI and Anthracite	21.5%

Domestic sales

We ship our coking coal concentrate from our coal washing facilities, located near our coal mines, by rail directly to our customers, including steel producers. In 2017, our largest domestic customer for our coking coal concentrate was MMK, accounting for 11.5% of our total coking coal concentrate sales and 5.0% of our total mining segment sales.

We sell coking coal concentrate domestically on the basis of annual framework contracts with monthly or quarterly adjustments to price and quantity.

We ship our steam coal from our warehouses by rail directly to our customers, which are predominantly local municipal services and electric power stations. Our supply contracts for steam coal are generally concluded with customers on a long-term basis with quantities and prices either fixed for the whole term or adjusted monthly. Some of our steam coal is consumed within our group; for example, sales of steam coal and middlings from our Southern Kuzbass Coal Company to our Southern Kuzbass Power Plant were 564.1 million rubles in 2017. In total, 179.0 thousand tonnes of steam coal was sold within our group in 2017. SUE HCS Sakha Republic

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(Yakutia) is our largest domestic customer of steam coal, accounting for 6.6% of our total steam coal sales and 0.9% of our total mining segment sales in 2017.

Iron ore concentrate is shipped by rail directly from our Korshunov Mining Plant to customers. In 2017, iron ore concentrate was sold primarily within our group. We set our prices on a monthly basis which is in line with the current practice in the Russian market of iron ore feed.

The majority of coke is sold domestically to our subsidiaries Chelyabinsk Metallurgical Plant and Bratsk Ferroalloy Plant, which accounted for 71.3% of our total coke sales (including intra-group sales) by volume in 2017. Major third party customers include pig iron, steel and ferroalloy producers located in the Central Region and in the Urals of Russia. Generally, sales in Russia are conducted pursuant to framework agreements with monthly adjustments of quantities and prices.

Our subsidiary Mecheltrans is a railway freight forwarding company, which owns its own rail rolling stock, consisting of 1,866 open cars and 57 pellet cars, and leases 3,921 open cars, 127 hopper pellet cars and 243 dumpcars under operating leases and 5,004 open cars under finance leases. In 2017, Mecheltrans transported domestically approximately 23.8 million tonnes of our cargo, approximately 67.2% of which was comprised of coal and iron ore concentrate.

Export sales

We export coking coal concentrate, PCI and anthracite, steam coal and coke and chemical products.

In 2017, the largest foreign customer of our mining segment was POSCO, accounting for 10.6% of our total mining segment sales. POSCO purchases consisted of PCI, coking coal concentrate and middlings.

We were Russia's third largest exporter of coking coal concentrate in 2017, according to MMI. Our exports of coking coal concentrate are primarily to China, Japan and South Korea. In 2017, Sojitz Corporation, POSCO, Baosteel Group Corporation, Yancheng Materials Group Co., Ltd. and Kobe Steel, Ltd. were our largest foreign customers of coking coal concentrate, accounting for 51.8% of our total coking coal concentrate sales and 22.6% of our total mining segment sales. Shipments are made by rail to seaports and further by sea, except for shipments to Eastern Europe and northeast China that are made only by rail.

Our exports of PCI and anthracite are primarily to Europe, South Korea, Japan and China, which together accounted for 92.9% of our total PCI and anthracite sales and 19.9% of our total mining segment sales in 2017. In 2017, our largest foreign customers of PCI and anthracite were POSCO, ArcelorMittal, Sojitz Corporation, Sumitomo Corporation and Mitsui & Co.

Our exports of steam coal are primarily to China, Japan and South Korea, which together accounted for 83.0% of our total steam coal sales and 11.1% of our total mining segment sales in 2017. In 2017, our largest foreign customers of steam coal were Batek Resources Limited, Sumitomo Corporation, Shandong Huanxin Products, Itochu Corporation and Dongseo Co., Ltd.

PCI, anthracite and steam coal are shipped to customers from our warehouses by rail and further by sea from Russian and Baltic ports.

In 2017, we used annual contracts for export sales of coal. Coal not shipped under annual contracts was sold on the spot market primarily to Chinese customers.

We export coke, including coke breeze, and chemical products primarily to Europe, which accounted for 31.1% of our total coke and chemical products sales and 3.5% of our total mining segment sales in 2017.

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From Port Posiet we ship primarily coking coal concentrate, steam coal and PCI to Japan, South Korea and China. In 2017, our Port Posiet processed 5.9 million tonnes of coal; its warehousing capacity is limited to 200 thousand tonnes per month for one-time storage of no more than four grades of coal. In order to expand the cargo-handling capacity of the port we constructed a modern transshipment complex and put into operation a mechanized coal loosening complex. The first stage of the Port Posiet's modernization enabled us to expand the cargo-handling capacity of the port up to 7.0 million tonnes per annum in 2016. Further modernization envisages the construction of deepwater berth and approach channel, as well as shiploader. The port's proximity to roads and rail links to key product destinations and transshipment points in China and Russia make it a cost-effective link in the logistical chain for bringing our coal products to the market.

In 2017, Mecheltrans transported for export approximately 11.9 million tonnes of our cargo, approximately 88.4% of which was comprised of coal.

Market share and competition**Coal**

According to the Central Dispatching Department, in 2017, the Russian coal mining industry was represented by 180 companies, which operated 61 underground mines and 119 open pit mines. As a result of the privatization of 1990s and subsequent mergers and acquisitions, the Russian coal mining industry has become more concentrated. Based on the Central Dispatching Department's data and our estimates, the ten largest coal mining companies in Russia produced approximately 73% of the overall coal production volume in 2017.

According to data from the Central Dispatching Department, companies' websites and our estimates, in 2017, we were the second largest coking coal producer in Russia, with a 16.9% share of total coking coal production by volume, and we had a 5.0% market share with respect to overall Russian coal production by volume. The following table lists the main Russian coking coal producers in 2017, the industrial groups to which they belong, their coking coal production volumes and their share of total Russian production volume.

Group	Company	Coking Coal Production (Thousands of Tonnes)	% of Coking Coal Production by Volume
EVRAZ plc	Raspadskaya PAO	11,435	13.5%
	Yuzhkuzbassugol Coal Company OAO	10,967	13.0%
	EVRAZ Total	22,402	26.5%
Mechel PAO	Yakutugol JSHC	7,312	8.6%
	Southern Kuzbass Coal Company PAO	3,517	4.2%
	Elgaugol OOO	3,466	4.1%
	Mechel Total	14,295	16.9%
Severstal PAO	Vorkutaugol AO	8,685	10.3%
Sibuglemet Holding	Mezhdurechye AO	4,251	5.0%
	Bolshevik Mine AO	1,224	1.5%
	Antonovskaya Mine AO	681	0.8%

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	Sibuglemet Total	6,156	7.3%
UMMC	Kuzbassrazrezugol Coal Company OAO	6,155	7.3%
Other		26,813	31.7%
Total		84,506	100.0%

Source: Central Dispatching Department, companies' websites and our estimates.

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According to Metal Expert, in 2017, we were the tenth largest steam coal producer in Russia, with a 1.6% share of total production by volume. The main Russian steam coal producers that occupy a substantial share in the Russian steam coal industry include SUEK, UMMC (Kuzbassrazrezugol Coal Company) and SDS-Coal, accounting for 56.4% of total steam coal production in 2017, according to Metal Expert.

In the domestic coal market, we compete primarily on the basis of price, as well as on the basis of the quality of coal, which in turn depends upon the quality of our production assets and the quality of our mineral reserves. Competition in the steam coal market is also affected by the fact that most power stations were built near specific steam coal sources and had their equipment customized to utilize the particular type of coal produced at the relevant local source. Outside of Russia, competition in the steam coal market is largely driven by coal quality, including volatile matter and calorie content.

Iron ore

The Russian iron ore market is generally characterized by high demand and limited sources of supply, with product quality as the main factor driving prices. According to Metal Expert, the market is dominated by relatively few producers, with the top three mining groups being Metalloinvest, NLMK and Severstal, representing 70.4% of total iron ore concentrate production. We were sixth in production volume in 2017 with 2.5 million tonnes of iron ore concentrate, representing 2.5% of total production of iron ore concentrate in Russia.

Mineral reserves

Our coal and iron ore reserves are based on exploration drilling and geological data, and are that part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination. Each year we update our reserve calculations based on actual production and other factors, including economic viability and any new exploration data. Our coal and iron ore reserves are presented in accordance with the criteria for internationally recognized reserve and resource categories of the Australasian Code for Reporting Mineral Resources and Ore Reserves (as amended) published by the Joint Ore Reserves Committee (**JORC**) of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia (the **JORC Code**), and meet the standards set by the SEC in its Industry Guide 7. Information on our mineral reserves has been prepared by our internal mining engineers as of December 31, 2017. To prepare this information our internal mining engineers used resource and reserve estimates, actual and forecast production, operating costs, capital costs, geological plan maps, geological cross sections, mine advance maps in plan and cross section and price projections.

Our coal and iron ore reserve estimates contained herein inherently include a degree of uncertainty and depend to some extent on geological assumptions and statistical inferences which may ultimately prove to have been unreliable. Consequently, reserve estimates should be regularly revised based on actual production experience or new information and should therefore be expected to change. Notably, should we encounter mineralization or formations different from those predicted by past drilling, sampling and similar examinations, reserve estimates may have to be adjusted and mining plans may have to be altered in a way that might adversely affect our operations. Moreover, if the price of metallurgical coal, steam coal or iron ore declines, or stabilizes at a price lower than recent levels, or if production costs increase or recovery rates decrease, it may become uneconomical to recover reserves containing relatively lower grades of mineralization and consequently our reserves may decrease. Conversely, should the price of metallurgical coal, steam coal or iron ore stabilize at a materially higher price than currently assumed, or if production costs decrease or recovery rates increase, it may become economical to recover material at lower grades than that assumed here and consequently our reserves may increase.

The calculation of our reserves in Russia is based on the expected operational life of each deposit based on life-of-mine plans, which in many cases exceed the relevant license period for the deposit. Russian subsoil

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licenses are issued for defined boundaries and specific periods, generally about 20 years. Our declared reserves are contained within the current license boundary. Our Russian subsoil licenses expire on dates falling in 2020 through 2037. However, in many cases, the life of the deposit is well beyond the license term. Based on Russian law and practice, as evidenced by our experience and publicly available information, including a number of court cases, it is reasonably likely that an incumbent subsoil user will be granted license extension through the end of the expected operational life of the deposit, provided that the licensee is not in violation of the material terms of the license. The cost for the license extension is not substantial. See [Regulatory Matters Subsoil Licensing in Russia Extension of licenses](#). We have received extension of certain of our subsoil licenses which expired and we intend to extend the licenses for all deposits expected to remain productive subsequent to their license expiry dates. However, license extension is not guaranteed and is to a certain extent subject to the discretion of regulatory authorities. See [Item 3. Key Information Risk Factors Risks Relating to Our Business and Industry](#) Our business could be adversely affected if we fail to obtain or extend necessary subsoil licenses and permits or fail to comply with the terms of our subsoil licenses and permits, [Item 3. Key Information Risk Factors Risks Relating to the Russian Federation Legal risks and uncertainties Deficiencies in the legal framework relating to subsoil licensing subject our licenses to the risk of governmental challenges and, if our licenses are suspended or terminated, we may be unable to realize our reserves, which could materially adversely affect our business, financial condition, results of operations and prospects and Regulatory Matters Subsoil Licensing in Russia.](#)

As of December 31, 2017, we had coal reserves totaling 2,972.3 million tonnes, of which approximately 76% was coking coal. The table below summarizes our coal reserves as of December 31, 2017.

Company	Proved Reserves ⁽¹⁾ Probable Reserves ⁽¹⁾		Total	% in Open Pit
	(In thousands of tonnes)			
Yakutugol	189,215	555	189,770	100.0%
Elgaugol	1,731,897	503,461	2,235,358	100.0%
Southern Kuzbass Coal Company	521,284	25,849	547,133	79.1%
Total	2,442,396	529,865	2,972,261	96.2%

(1) Reserves include adjustments for loss and dilution modifying factors. The table below summarizes our reserves by coal type as of December 31, 2017.

Company	Category	Coking Coal	Steam Coal	Anthracite	Lignite	Total ⁽¹⁾
		(In thousands of tonnes)				
	Proved	97,820	8,444	0	82,951	189,215
	Probable	263	292	0	0	555
Yakutugol	Total	98,083	8,736	0	82,951	189,770
	Proved	1,471,809	260,088	0	0	1,731,897
	Probable	462,257	41,204	0	0	503,461
Elgaugol	Total	1,934,066	301,292	0	0	2,235,358

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	Proved	207,555	201,313	112,416	0	521,284
	Probable	18,529	7,217	103	0	25,849
Southern Kuzbass Coal Company	Total	226,084	208,530	112,519	0	547,133
	Proved	1,777,184	469,845	112,416	82,951	2,442,396
	Probable	481,049	48,713	103	0	529,865
Total		2,258,233	518,558	112,519	82,951	2,972,261

(1) Reserves include adjustments for loss and dilution modifying factors.

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The table below sets forth reserves attributable to our Yakutugol mines as of December 31, 2017.

Mine	Proved Reserves	Probable Reserves	Total ⁽¹⁾⁽²⁾	Heat Value ⁽³⁾	% Sulfur
	(In thousands of tonnes)			(In kcal/kg)	
Neryungrinsky Open Pit ⁽⁴⁾⁽⁵⁾	103,580	555	104,135	8,794	0.11 - 0.30
Kangalassky Open Pit ⁽⁵⁾	82,951	0	82,951	6,834	0.40
Dzhebariki-Khaya Open Pit ⁽⁵⁾	2,684	0	2,684	7,500	0.22
Total	189,215	555	189,770		

(1) Reserves reported on a wet in-situ basis and include adjustments for loss and dilution modifying factors.

(2) In estimating the reserves, we used the following average prices: \$107 per tonne (FCA basis) for coking coal concentrate and \$34 per tonne (FCA basis) for raw steam coal.

(3) Heat value is reported on a moisture- and ash-free basis.

(4) Mined coking coal is processed at Neryungrinskaya Washing Plant with a weighted average yield of coking coal concentrate of 66%.

(5) Steam coal is sold as ROM without processing.

The table below sets forth reserves attributable to our Elgaugol mine as of December 31, 2017.

Mine	Proved Reserves	Probable Reserves	Total ⁽¹⁾⁽²⁾	Heat Value ⁽³⁾	% Sulfur
	(In thousands of tonnes)			(In kcal/kg)	
Elga Open Pit ⁽⁴⁾	1,731,897	503,461	2,235,358	7,000-8,600	0.25
Total	1,731,897	503,461	2,235,358		

(1) Reserves reported on a wet in-situ basis and include adjustments for loss and dilution modifying factors.

(2) In estimating the reserves, we used the following average prices: \$110 per tonne (FCA basis) for coking coal concentrate and \$29 per tonne (FCA basis) for raw steam coal.

(3) Heat value is reported on a moisture- and ash-free basis.

(4) Mined coal is processed at Elginskaya Washing Plant and Sibir Washing Plant with a weighted average yield of concentrate of 41% and 74%, respectively.

The table below sets forth reserves attributable to our Southern Kuzbass mines as of December 31, 2017.

Mine	Proved Reserves	Probable Reserves	Total ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾	Heat Value ⁽⁵⁾	% Sulfur
	(In thousands of tonnes)			(In kcal/kg)	
Krasnogorsky Open Pit	194,490	194	194,684	8,100	0.33

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Olzherassky Open Pit	54,137	5,963	60,100	8,363	0.30
Tomusinsky Open Pit	6,639	4,400	11,039	8,390	0.30
Sibirginsky Open Pit	166,981	45	167,026	8,530	0.30
Sibirginskaya Underground	38,935	4,024	42,959	8,477	0.28
V.I. Lenina Underground	27,573	11,223	38,796	8,436	0.35
Olzherasskaya-Novaya Underground	32,529	0	32,529	7,912	0.20
Yerunakovskaya-1 Underground (project) ⁽⁶⁾					
Yerunakovskaya-3 Underground (prospect) ⁽⁷⁾					
Olzherasskaya-Glubokaya Underground (prospect) ⁽⁷⁾					
Usinskaya Underground (prospect) ⁽⁷⁾					
Total	521,284	25,849	547,133		

- (1) Reserves reported on a wet in-situ basis and include adjustments for loss and dilution modifying factors.
- (2) In estimating the reserves, we used the following average prices (FCA basis): \$130 per tonne for coking coal concentrate, \$68 per tonne for anthracite, \$67 per tonne for PCI and \$28 per tonne for raw steam coal.

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- (3) Reserves are presented on an assumed 100% basis.
- (4) Mined coal is processed at Sibir Washing Plant, Kuzbasskaya Washing Plant, Tomusinskaya Washing Plant, Sibirginskaya Processing Unit and Krasnogorskaya Washing Plant with a weighted average yield of concentrate of 71%, 73%, 60%, 29% and 52%, respectively.
- (5) Heat value is reported on a moisture- and ash-free basis.
- (6) The extraction is considered uneconomic based on a feasibility study developed in 2017.
- (7) Not considered in the review because these prospects presently do not have mine plans.

As of December 31, 2017, we had iron ore reserves (proved and probable) totaling 146.6 million tonnes at an average iron grade of 26.4%. The table below summarizes iron ore reserves by mine as of December 31, 2017.

Mine	Proved Reserves	Probable Reserves	Total ⁽¹⁾⁽²⁾⁽³⁾	Grade (Fe %) ⁽⁴⁾
Korshunovsky Open Pit	52,363	32,892	85,255	23.7
Rudnogorsky Open Pit	34,361	26,967	61,328	30.1
Total	86,724	59,859	146,583	26.4

- (1) Reserves reported on a wet in-situ basis and include adjustments for loss and dilution modifying factors.
- (2) In estimating the reserves, we used the average price of \$60 per tonne (FCA basis) for iron ore concentrate.
- (3) Reserves are presented on an assumed 100% basis.
- (4) Mined iron ore is processed at the Korshunovsky concentrating plant with a weighted average yield of iron ore concentrate within the range of 32-35%.

Steel Segment

Our steel segment comprises the production and sale of semi-finished steel products, long products of a wide range of steel grades, carbon and stainless flat steel products and high value-added metal products, including wire products, stampings and forgings, structural shapes, beams and rails. Within these product groups, we are further able to tailor various steel grades to meet specific end-user requirements. It also comprises the production of ferrosilicon, both for internal use and for sales to third parties. Our steel segment is supported by our mining segment, which includes coke and iron ore concentrate.

Our steel segment has production facilities in Russia and Lithuania. Our total steel output was 4.3 million tonnes in 2017, 4.3 million tonnes in 2016 and 4.3 million tonnes in 2015. Our ferrosilicon production amounted to 68.6 thousand tonnes in 2017, 88.5 thousand tonnes in 2016 and 92.9 thousand tonnes in 2015.

Description of key products

Pig iron. Pig iron is an iron alloy with usual carbon content of above 2% which is produced from smelting iron ore feed (sinter, pellets and other ore materials) in the blast furnace. Liquid pig iron is used as an intermediate product in the manufacturing of steel. Pig iron in molten state and cold pig iron can be used as charging material for steel manufacturing in basic oxygen furnaces, electric arc furnaces and in the manufacturing of cast iron in cupolas. Cold pig iron is brittle. We sell small volumes of pig iron from our Chelyabinsk Metallurgical Plant to third parties.

Semi-finished products. Semi-finished products typically require further milling before they are useful to end consumers. We offer semi-finished billets, blooms and slabs. Billets and blooms are precursors to long products and have a square cross section. The difference between billets and blooms is that blooms have a larger cross-section which is more than eight inches and is broken down in the mill to produce rails, I-beams, H-beams and sheet piling. Slabs are precursors to flat products and have a rectangular cross section. Such types of products can be produced both by continuous casting of liquid steel and by casting of liquid steel in casting forms with subsequent drafting on blooming mills. We offer our customers billets and blooms produced by Izhstal and Chelyabinsk Metallurgical Plant, as well as slabs produced by Chelyabinsk Metallurgical Plant.

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Long steel products. Long steel products are rolled products used in many industrial sectors, particularly in the construction and engineering industries. They include various types of products, for example, rebar, calibrated long steel products and wire rod, which could be supplied both in bars and coils in a wide range of sizes. Our long steel products are manufactured at Chelyabinsk Metallurgical Plant, Izhstal and Beloretsk Metallurgical Plant.

We offer our customers a wide selection of long products produced from various steel grades, including rebar, calibrated long steel products, round rolled products, surface-conditioned rolled products, wire rod, as well as a wide range of structural shapes, including beams, channels, rails and others.

Flat steel products. Flat steel products are manufactured by multiple drafting slabs in forming rolls with subsequent coiling or cutting into sheets. Plates are shipped after hot rolling or heat treatment. Coiled stock can be subject to cutting lengthwise into slit coils or crosswise into sheets. Stainless steel is used to manufacture plates and cold-rolled sheets in coils and flat sheets. Hot-rolled plates and carbon and alloyed coiled rolled products are manufactured at Chelyabinsk Metallurgical Plant.

Stampings and forgings. Stampings are special parts stamped from metal billets. Forgings are special products made through the application of localized compressive forces to metal. Forged metal is stronger than cast or machined metal. Our stampings and forgings are offered on a made-to-order basis according to minimum batches depending on the products sizes. Our product offerings include rollers and axles used in vehicle manufacturing; gears and wheels; bars; and others. Our stampings and forgings are produced at Urals Stampings Plant, including its branch in Chelyabinsk.

Wire products. Wire products are the result of processing of wire rod which are ready for use in manufacturing and consumer applications. Our wire products are manufactured at Beloretsk Metallurgical Plant, Vyartsilya Metal Products Plant and Izhstal in Russia and Mechel Nemunas in Lithuania. Our wide-ranging wire products line includes spring wire; rope wire; bearing wire; microwire; precision alloy wire; high and low carbon concrete reinforcing wire; galvanized wire; copper-coated and bright welding wire; strand of various application; various types of nails; steel wire ropes specially engineered for the shipping, aerospace, oil and gas and construction industries; steel wire ropes for passenger and freight elevators; general-purpose wire; steel straps and clips; chain link fences; welded (reinforcing) meshes; and others.

Ferrosilicon. Ferrosilicon is used in ferrous metallurgy as a deoxidizer or as an alloying element for production of electrotechnical, spring wire, corrosion-resistant and heat resistant steel grades, or as a pig iron modifier. In nonferrous metallurgy, ferrosilicon is used as a reducing agent for production of nonferrous metals and alloys. We produce two types of ferrosilicon: with 65% and 75% silicon content in the alloy. We offer our customers ferrosilicon produced by Bratsk Ferroalloy Plant.

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The following table sets out our production volumes by primary steel product categories and main products within these categories.

Product	2017	2016	2015
	(In thousands of tonnes)		
Pig Iron	4,029	4,053	4,065
Semi-Finished Steel Products, including:	833	936	1,098
Carbon and Low-Alloyed Semi-Finished Products	828	926	1,081
Long Steel Products, including:	2,769	2,768	2,463
Stainless Long Products	12	12	8
Alloyed Long Products	65	127	121
Rebar	1,319	1,509	1,543
Rails	358	304	20
Structural Shapes	411	213	155
Wire Rod	241	249	230
Low-Alloyed Engineering Steel	360	353	381
Flat Steel Products, including:	477	464	481
Stainless Flat Products	4	6	10
Carbon and Low-Alloyed Flat Products	472	457	471
Forgings, including:	40	41	47
Stainless Forgings	2	3	3
Alloyed Forgings	26	26	32
Carbon and Low-Alloyed Forgings	12	11	12
Stampings	95	75	69
Wire Products, including:	575	602	628
Wire	522	549	580
Ropes	43	43	37

Steel manufacturing process and types of steel

The most common steel manufacturing processes are production in a basic oxygen furnace (**BOF**) and production in an electric arc furnace (**EAF**).

In BOF steel manufacturing, steel is produced with less than 2% carbon content. The principal raw materials used to produce steel are liquid pig iron and scrap metal. The molten steel, depending on the products in which it will be used, undergoes additional refining and is mixed with manganese, nickel, chrome, titanium and other components to give it special properties. Approximately 74% of the world's steel output is made in BOFs, according to Wood Mackenzie.

In EAF steel manufacturing, steel is generally produced from remelted scrap metal. Heat to melt the scrap metal is supplied from high-voltage electricity that arcs within the furnace between graphite electrodes and the scrap metal. This process is suitable for producing almost all steel grades, including stainless steel; however, it is limited in its use for production of high-purity carbon steel. Approximately 26% of the world's steel output is made in EAFs, according to Wood Mackenzie.

Steel products are broadly subdivided into two categories – flat and long products. Flat products are hot-rolled or cold-rolled coils and sheets that are used in the engineering, pipe and manufacturing industries, as well as in the white goods and automotive industries. Long products are used for construction-type applications (beams, rebar) and the

engineering industry. To create flat and long products, molten steel is cast in continuous-casting machines or casting forms (molds). The molten steel crystallizes and turns into semi-finished products in the form of blooms, slabs or ingots. Ingots and blooms have a square cross-section and are used for further processing into long products. Slabs have a rectangular cross-section and are used to make flat products. All semi-finished products are rolled at high temperatures, a process known as hot rolling. They are drawn and flattened through rollers to give

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the metal the desired dimensions and strength properties. Some flat steel products go through an additional step of rolling without heating, a process known as cold rolling and is used to obtain certain mechanical properties of the steel. After cold rolling, annealing in reheating furnaces with cooling that stress-relieves the metal is periodically required. Oil may be applied to the metal surface for protection from rust.

The properties of steel (strength, solidity, plasticity, magnetization, corrosion-resistance) may be modified to render it suitable for its intended future use by the addition by smelting of small amounts of other metals into the structure of the steel, varying the steel's chemical composition. For example, the carbon content of steel can be varied in order to change its plasticity, or chrome and nickel can be added to produce stainless steel. Resistance to corrosion can be achieved through application of special coatings (including polymeric coatings), galvanization, copper coating or tinning, painting and other treatments.

Ferrosilicon manufacturing process

Ferrosilicon is produced in EAFs in a continuous ore smelting process. Silicon is reduced from quartzite with coke and coal carbon and alloyed with steel cutting iron. Ferrosilicon is discharged from the furnace periodically. After cooling, metal ingots are split and sorted into various commercial fractions.

Steel segment production facilities

Most of our metallurgical plants have obtained a certificate of quality under ISO international standards. For example, the main manufacturing processes at Chelyabinsk Metallurgical Plant, Izhstal, Beloretsk Metallurgical Plant and Urals Stampings Plant are ISO 9001:2008 certified.

Chelyabinsk Metallurgical Plant

Chelyabinsk Metallurgical Plant is an integrated steel mill which produces flat and long carbon and stainless steel products, rail and beam sections and semi-finished products. Semi-finished products are used for further processing in Russia or our internal needs. Chelyabinsk Metallurgical Plant also produces pig iron which is used in the manufacturing of steel. The plant sources all of its metallurgical coke needs from Mechel Coke and most of its iron ore concentrate needs from Korshunov Mining Plant. Its customer base is largely comprised of companies from the construction and railways construction and repair industries, as well as ferrous metallurgy. We acquired Chelyabinsk Metallurgical Plant in 2001.

Chelyabinsk Metallurgical Plant's principal production lines include a BOF workshop equipped with three converters; two EAF workshops equipped with EAFs of 100 and 125 tonnes, respectively; five concasting machines; a blooming mill for 200-320 millimeter billets; five long products rolling mills for 6.5-190 millimeter round bars and 75-156 millimeter square bars, wire rod, rebar steel, bands and long products; a universal rail and structural rolling mill for structural shapes of different types and sizes and rail products; a hot-rolled flat products workshop with a thick sheet continuous rolling mill for hot-rolled sheets of up to 1,800 millimeters wide and up to 20 millimeters thick; a semi-continuous rolling mill for up to 1,500 millimeters wide and up to 6 millimeters thick hot-rolled coils; a cold-rolled product workshop for 0.3-4 millimeter cold-rolled stainless sheet. In addition, we have at our Chelyabinsk Metallurgical Plant four sintering machines and three blast furnaces. The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for each of Chelyabinsk Metallurgical Plant's principal production areas.

Production Area	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
	(In thousands of tonnes, except for percentages)		
Sintering	5,250	91.5%	
Pig iron	4,150	97.1%	
Steel-making	4,933	80.0%	
Rolling	4,802	74.0%	

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Chelyabinsk Metallurgical Plant produced approximately 4.0 million tonnes of raw steel and 3.6 million tonnes of rolled products, of which 358.5 thousand tonnes were rail products in 2017.

In 2008, we initiated construction of a universal rail and structural rolling mill at the Chelyabinsk Metallurgical Plant. The project is aimed at producing new types of large section structural shapes (including beams, angles, rails, channels and special sections) with total output 1.1 million tonnes per annum. Italian Danieli & C. Officine Meccaniche S.p.A. (**Danieli**) is the equipment supplier and Chinese Minmetals Engineering Co. Ltd. (**Minmetals**) is the general contractor. Investments will amount to 21.8 billion rubles. In July 2013, the universal rail and structural rolling mill was launched. At present, we are developing production of both guarantee products and new products, as well as certification of products for the Russian and European markets is being carried out. Three certificates of conformity of the Customs Union and two certificates of compliance with the TSI safety standards for the EU countries were obtained on certain types of rails; preparatory work for further certification of rails for the European Union is in progress.

The main target customers for the universal rolling mill products are Russian Railways, construction industry and different manufacturing companies. On November 13, 2008, Chelyabinsk Metallurgical Plant and Russian Railways signed an agreement for the supply of rails for the period until 2030. The annual supply volume is fixed at up to 400 thousand tonnes of rails. The increase in sales volume of the universal rolling mill products will occur along with the development and certification of new types of products.

In December 2010, Mechel Materials started assembling the main manufacturing equipment of the grinding-mixing complex for Portland blast-furnace slag cement production with 1.6 million tonnes capacity per annum in the territory of Chelyabinsk Metallurgical Plant. The main raw material is blast furnace slag produced by Chelyabinsk Metallurgical Plant. This complex is the first Russian facility to produce high-quality Portland blast-furnace slag cement of certain grades (CEMIII/A, CEMIII/B, CEMIII/C). Portland blast-furnace slag cement is widely used in the construction industry for the production of reinforced concrete structures. Investments amount to 5.1 billion rubles. In 2013, construction and assembly and commissioning works on the basic process equipment were completed and production in the mode of experimental-industrial testing commenced. In 2014-2017, we mastered production of Portland blast-furnace slag cement, ground granulated blast-furnace slag, Portland cement, active mineral admixture for concrete and mineral powder for stowing operations. In April 2016, Mechel Materials obtained a quality management system certificate ISO 9001:2008. In late 2016, main technological equipment was commissioned.

Izhstal

Izhstal is a special steel producer located in the western Urals city of Izhevsk, in the Republic of Udmurtia, a Russian administrative region also known as Udmurtia. Its customer base is largely comprised of companies from the aircraft, defense, engineering, metal-processing and automotive industries. We acquired Izhstal in 2004.

Izhstal's principal production facilities include two EAFs of 25 and 40 tonnes; two ladle furnaces and a ladle vacuum oxygen decarburizer; a concasting machine; a blooming mill for 100-220 millimeter billets; two medium-sized long products rolling mills for 30-120 millimeter round bars, 30-90 millimeter square bars, bands and hexagonal bars; and one continuous small sort wire mill for 5.5-29 millimeter round, 12-28 millimeter square and 12-27 millimeter hexagonal light sections, reinforced steel and bands. The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for each of Izhstal's principal production areas.

Production Area

	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
(In thousands of tonnes, except for percentages)			
Steel-making	367	68.6%	
Rolling	667	65.4%	
Wire products	4	11.5%	

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Izhstal produced 251.5 thousand tonnes of raw steel, 435.9 thousand tonnes of rolled products, of which 347.4 thousand tonnes were long products, and approximately 0.5 thousand tonnes of wire products in 2017.

Beloretsk Metallurgical Plant

Beloretsk Metallurgical Plant is a wire products plant in Beloretsk, in the southern part of Ural Mountains, which produces wire rod and a broad range of wire products from semi-finished products supplied by Chelyabinsk Metallurgical Plant and Izhstal. Its customers are largely from the construction, mining, engineering and other industries. We acquired Beloretsk Metallurgical Plant in 2002.

Beloretsk Metallurgical Plant's principal production lines include a rolling workshop equipped with a wire mill for production of 5.5-13.5 millimeter wire rod; a number of wire products workshops equipped with drawing, rewinding, wire stranding, cabling, grinding equipment and heat treatment furnaces, wire annealing and galvanizing, patenting and galvanizing lines; low relaxation prestressed concrete wire and rope lines; cold-worked rebar line and cold strand and section rolling mills. The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for each of Beloretsk Metallurgical Plant's principal production areas.

Production Area	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
	(In thousands of tonnes, except for percentages)		
Rolling	630	71.4%	
Wire products	600	73.2%	

Beloretsk Metallurgical Plant produced a total of 439.4 thousand tonnes of wire products in 2017. Rolled products production in 2017 amounted to a total of 449.6 thousand tonnes, of which 393.4 thousand tonnes were further processed into wire products and 56.2 thousand tonnes constituted the output volume of wire rod for third party customers.

Vyartsilya Metal Products Plant

Vyartsilya Metal Products Plant is a wire products plant in the Republic of Karelia, an administrative region in the northwest of Russia near the Finnish border that produces low carbon welding, general-purpose and structural wire, nails and steel bright and polymeric-coated chain link fences. The plant uses wire rod supplied by Chelyabinsk Metallurgical Plant and Beloretsk Metallurgical Plant. The plant's customers are largely from the construction industry and ferrous metallurgy. We acquired Vyartsilya Metal Products Plant in 2002.

Vyartsilya Metal Products Plant's principal production facilities include drawing machines, annealing furnaces, chain linking machines, nail-making presses and cutting machines. The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for Vyartsilya Metal Products Plant's principal production area.

Production Area	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
	(In thousands of tonnes, except for percentages)		

Wire products	96	70.2%
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Vyartsilya Metal Products Plant produced 67.4 thousand tonnes of wire products in 2017.

Urals Stampings Plant

Urals Stampings Plant produces stampings and forgings from special steels and heat-resistant and titanium alloys for the aerospace, oil and gas, heavy engineering, power and other industries. Urals Stampings Plant

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sources its special steel needs from Chelyabinsk Metallurgical Plant and Izhstal. We acquired Urals Stampings Plant in 2003.

Principal production facilities of Urals Stampings Plant and its branch in Chelyabinsk include 1.5-25 tonne swages and hydraulic presses. The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for Urals Stampings Plant's principal production area.

Production Area	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
(In thousands of tonnes, except for percentages)			
Stampings and forgings	199	67.8%	

Urals Stampings Plant produced 134.8 thousand tonnes of special steel stampings and forgings in 2017.

Mechel Nemunas

Mechel Nemunas is a Lithuanian wire products plant located in Kaunas that produces hard-drawn, annealed, electrode and concrete reinforcement wire, nails, steel wire fiber and chain link fences. The plant uses wire rod supplied by Chelyabinsk Metallurgical Plant and Beloretsk Metallurgical Plant. Its customers are primarily from the construction industry of Europe and Baltic countries. We acquired Mechel Nemunas in 2003.

Mechel Nemunas's principal production facilities include drawing machines, nail-making presses, equipment for fiber production, chain linking machines and bell furnaces. The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for Mechel Nemunas's principal production area.

Production Area	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
(In thousands of tonnes, except for percentages)			
Wire products	89	76.0%	

Mechel Nemunas produced 67.7 thousand tonnes of wire products in 2017.

Bratsk Ferroalloy Plant

Bratsk Ferroalloy Plant is the largest enterprise in Eastern Siberia producing high-grade ferrosilicon. Ferrosilicon is used in the steel-making industry as a deoxidizer for manufacturing of most steel grades, including carbon and stainless steel grades; or as an alloying element for the production of insulating, acid-proof and heatproof steel grades; or as a pig iron modifier; and as a reducing agent for the production of nonferrous metals and alloys. Approximately 5-6 kg of ferrosilicon is used in every tonne of steel produced. We acquired Bratsk Ferroalloy Plant in 2007.

The main production facilities of the plant include three ore-thermal furnaces with a capacity of 25 megavolt-amperes (MVA) and one ore-thermal furnace with a capacity of 33 MVA. In October 2010, we signed contracts with Siberian Plant of Electrothermal Equipment (Sibelectrotherm JSC, Novosibirsk) for the supply of four ore-thermal furnaces with a capacity of 33 MVA each to replace the existing furnaces. We commenced commercial operations of the first

new furnace in the second quarter of 2013. Currently, the second furnace assemblage is suspended. The launch of this furnace is expected in 2018. Following the commissioning of the second new furnace, Bratsk Ferroalloy Plant's production capacity is expected to increase by 15%.

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The following table sets forth the capacity, the capacity utilization rate and the planned increase in capacity for Bratsk Ferroalloy Plant's principal production area.

Production Area	Capacity in 2017	Capacity Utilization Rate in 2017	Planned Increase (2018-2020)
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(In thousands of tonnes, except for percentages)

Ferrosilicon (65% silicon content in the alloy)	90	82.4%	
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Bratsk Ferroalloy Plant produced 68.6 thousand tonnes of ferrosilicon with 65% and 75% silicon content in the alloy in 2017.

Sales of steel segment products

The following table sets forth our revenues by primary steel segment product categories and our main products within these categories (including as a percentage of total steel segment revenues) for the periods indicated.

Product	2017		2016		2015	
	Amount	% of Revenues	Amount	% of Revenues	Amount	% of Revenues

(In millions of Russian rubles, except for percentages)

Pig Iron	113.9	0.1%	679.2	0.4%	1,287.4	0.9%
Semi-Finished Steel Products, including:	491.9	0.3%	3,433.5	2.1%	5,027.2	3.4%
Carbon and Low-Alloyed Semi-Finished Products	326.8	0.2%	2,730.4	1.7%	4,139.8	2.8%
Long Steel Products, including:	96,768.0	56.0%	89,575.0	55.5%	73,853.0	50.6%
Stainless Long Products	2,190.6	1.3%	2,055.2	1.3%	1,711.9	1.2%
Other Long Products	48,729.7	28.2%	39,098.9	24.2%	28,151.8	19.3%
Rebar	42,734.5	24.7%	45,204.1	28.0%	39,980.2	27.4%
Wire Rod	3,113.2	1.8%	3,216.8	2.0%	4,009.1	2.7%
Flat Steel Products, including:	22,504.8	13.0%	18,230.2	11.2%	17,490.1	12.0%
Stainless Flat Products	1,198.0	0.7%	1,507.7	0.9%	2,564.6	1.8%
Carbon and Low-Alloyed Flat Products	21,306.8	12.3%	16,722.5	10.3%	14,925.5	10.2%
Forgings, including:	4,101.4	2.4%	4,416.9	2.8%	5,248.6	3.6%
Stainless Forgings	1,125.8	0.7%	1,385.2	0.9%	1,368.4	0.9%
Other Forgings	2,975.6	1.7%	3,031.7	1.9%	3,880.2	2.7%
Stampings	8,146.1	4.7%	7,235.1	4.5%	6,917.6	4.7%
Wire Products, including:	27,577.6	16.0%	24,579.8	15.2%	23,442.6	16.0%
Wire	17,498.4	10.1%	15,530.4	9.6%	15,560.9	10.7%
Ropes	3,374.4	2.0%	3,075.7	1.9%	2,254.9	1.5%
Other Wire Products	6,704.8	3.9%	5,973.7	3.7%	5,626.8	3.8%
Steel Pipes	2,733.1	1.6%	3,286.2	2.0%	3,308.3	2.3%
Ferrosilicon	2,807.1	1.6%	3,367.5	2.1%	3,527.7	2.4%

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Other	7,516.0	4.3%	6,835.3	4.2%	5,929.4	4.1%
Total	172,759.9	100.0%	161,638.7	100.0%	146,031.9	100.0%

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The following table sets forth percentage of sales by the regions in which our steel segment products were sold for the periods indicated.

Region⁽¹⁾	2017	2016	2015
Russia	74.4%	72.3%	68.1%
Europe	14.4%	14.8%	15.9%
CIS	9.8%	10.4%	12.4%
Asia	1.1%	1.2%	1.3%
Middle East ⁽²⁾	0.1%	0.5%	1.1%
Other	0.0%	0.5%	1.0%
United States	0.2%	0.3%	0.2%
Total	100.0%	100.0%	100.0%

(1) The regional breakdown of sales is based on the geographic location of our customers, and not on the location of the end users of our products, as our customers are often distributors that resell and, in some cases, further export our products.

(2) Our steel segment sales to Middle East primarily go to Turkey, which accounted for 67.7% of the total steel segment sales to Middle East in 2017. We did not have any direct sales to Iran and Syria in 2017, and we have no plans to make such direct sales in the future.

In 2017, the five largest customers of our steel products were Russian Railways (long steel products, flat steel products and wire products), EVRAZ (flat steel products, long steel products and wire products), Metallservice OAO (long steel products, flat steel products and wire products), Steel Industrial Company AO (long steel products, wire products, flat steel products, pipes and semi-finished products) and Mostotrest PJSC (long steel products, flat steel products, wire products and pipes), which together accounted for 13.2% of our total steel segment sales.

In 2017, the five largest customers of ferrosilicon were Severstal, Mitsui & Co., Globalalloy Technologies Co. Ltd., MMK and ACTS Trading Corporation, which together accounted for 1.2% of our total steel segment sales.

The majority of our steel segment export sales are made to end users in non-sanctioned countries. The remainder of our steel products is exported to independent distributors and traders. We refer to such transactions as indirect sales. Contracts with distributors and traders generally specify certain locations to which we must deliver our products. The distributors and traders take delivery of our products at these locations, and further on-sell the products to other distributors or end users. Generally, when dealing with distributors and traders, we do not have information about the end users of our products. In case of indirect sales, we do not have control over the final destination of our products, contractually or otherwise.

Based on the available documentation, we are aware that certain of our products may be sold into and can be re-sold to countries that are subject to international trade restrictions or economic embargoes that prohibit and/or materially restrict certain persons (for instance, U.S. incorporated entities and U.S. citizens or residents) from engaging in commercial, financial or trade transactions with such countries, including Iran, Syria, North Korea and Cuba (the **Sanctioned Countries**). We did not have any direct sales to the Sanctioned Countries in 2017. We estimate that approximately 1.1% of our total sales in 2017 were sold to Belarus, Serbia and Montenegro, Moldova and Bosnia and Herzegovina, of which 0.7% were direct sales to end users, however none of the sales to these jurisdictions were made

to Specially Designated Nationals.

We are aware of governmental initiatives in the United States and elsewhere to adopt laws, regulations or policies prohibiting or materially restricting transactions with or investment in, or requiring divestment from, entities doing business with the Sanctioned Countries. We recognize that acts prohibiting or restricting the

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foregoing can sometimes be applied to our company and that dealings with the Sanctioned Countries can have an adverse effect on our business reputation.

The following table sets forth information on our domestic and export sales of our primary steel segment product categories for the periods indicated. We define exports as sales by our Russian and foreign subsidiaries to customers located outside their respective countries. We define domestic sales as sales by our Russian and foreign subsidiaries to customers located within their respective countries. See note 26 to the consolidated financial statements.

Product	2017	2016	2015
	(In millions of Russian rubles, except for percentages)		
Pig Iron	113.9	679.2	1,287.4
Domestic Sales	100.0%	82.7%	35.6%
Export	0.0%	17.3%	64.4%
Semi-Finished Steel Products	491.9	3,433.5	5,027.2
Domestic Sales	93.3%	63.7%	63.0%
Export	6.7%	36.3%	37.0%
Long Steel Products	96,768.0	89,575.0	73,853.0
Domestic Sales	90.3%	88.6%	83.1%
Export	9.7%	11.4%	16.9%
Flat Steel Products	22,504.8	18,230.2	17,490.1
Domestic Sales	89.2%	88.5%	88.9%
Export	10.8%	11.5%	11.1%
Forgings	4,101.4	4,416.9	5,248.6
Domestic Sales	61.3%	72.0%	63.3%
Export	38.7%	28.0%	36.7%
Stampings	8,146.1	7,235.1	6,917.6
Domestic Sales	92.1%	95.4%	92.2%
Export	7.9%	4.6%	7.8%
Wire Products	27,577.6	24,579.8	23,442.6
Domestic Sales	85.5%	84.0%	84.4%
Export	14.5%	16.0%	15.6%
Steel Pipes	2,733.1	3,286.2	3,308.3
Domestic Sales	93.8%	90.2%	90.5%
Export	6.2%	9.8%	9.5%
Ferrosilicon	2,807.1	3,367.5	3,527.7
Domestic Sales	53.1%	47.2%	57.1%
Export	46.9%	52.8%	42.9%
Other	7,516.0	6,835.3	5,929.4
Domestic Sales	83.3%	81.2%	86.4%
Export	16.7%	18.8%	13.6%
Total	172,759.9	161,638.7	146,031.9
Domestic Sales	87.9%	86.0%	82.3%
Export	12.1%	14.0%	17.7%

The end users of our steel products vary. Our rebar is principally used in the construction industry. The main end users of our wire rod are construction companies and wire products producers. Our other long steel products are used in various moving parts manufactured by the automotive industry, as well as the engineering, pipe, construction and railway construction industries. Our flat steel products are used in the construction (covers, floor plates) and pipe industries. Our stampings and forgings are primarily used in the engineering and pipe industries. The main end users of our wire products are the construction, mining, engineering and other industries.

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The following table describes, in percentage terms, Russian domestic shipment volumes of our steel products further broken down by industry sector.

Use by Industry	Construction	Metals Trading	Ferrous Metallurgy	Engineering and Metalworking	Vehicles Manufacturing	Railways Construction and Repair	Other Industries⁽¹⁾
Semi-Finished Steel Products	0.0%	0.4%	99.4%	0.0%	0.1%	0.0%	0.1%
Long Steel Products	26.2%	32.0%	8.5%	2.9%	3.1%	13.9%	13.4%
Flat Steel Products	8.9%	37.5%	20.3%	4.1%	1.4%	0.1%	27.7%
Forgings	0.0%	64.3%	19.5%	14.5%	1.7%	0.0%	0.0%
Stampings	0.0%	8.6%	0.1%	7.0%	84.3%	0.0%	0.0%
Wire Products	14.0%	42.2%	12.9%	5.6%	2.9%	5.2%	17.2%
Steel Pipes	8.6%	55.1%	24.5%	1.8%	0.4%	0.0%	9.6%

(1) Including mining and power industries and consumer goods sector.

Marketing and distribution

We use flexible sales strategies that are tailored to our customers and the markets we serve. Our overall sales strategy is to develop long-term close partnership with the end users of our products. As part of our end-user strategy, we research sales to distributors to identify the end user and directly market our steel products to these customers. With respect to our largest end users, we have established working committees, composed of our manufacturing engineers and customer personnel. These committees meet quarterly to monitor the performance of our products and ensure that our customers' specifications and quality requirements are consistently met. These committees also provide customers with the opportunity to discuss their future needs with us. We attend industry conferences and advertise in industry periodicals to market our products and capabilities. Through these efforts, we have established a strong brand identity for Mechel in Russia, the CIS, Central Europe, South-East Asia and the Middle East.

We have a distribution network consisting of Mechel Service and Mechel Service Global which provide end users in Russia, the CIS and Europe with our steel products. Mechel Service and Mechel Service Global help us to develop and service our long-standing customer relationships by providing highly specialized technical sales and service to our customers.

In 2017, our domestic and export sales were conducted by Mechel Service and Mechel Service Global, respectively, as well as directly by our own production facilities.

Domestic sales

Our Russian steel production facilities Chelyabinsk Metallurgical Plant, Izhstal and Urals Stampings Plant are located in large industrial areas and have long-standing relationships with local wholesale customers. Mechel Service, our steel sales and service subsidiary, has 58 storage sites in 45 cities throughout Russia to serve our end users, which helps us to establish long-standing customer relationships by virtue of proximity to both production and customers. In 2017, Mechel Service sold 1.6 million tonnes of our steel products.

Ferrosilicon sales are conducted directly by our Bratsk Ferroalloy Plant. We supply ferrosilicon on the Russian market under annual contracts with monthly adjustment of prices and volumes, as well as on the spot market (under monthly tenders).

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Export sales

Most of the exports in our steel segment are made to end users in non-sanctioned countries, with the rest sold to independent distributors and traders, which then resell our products to end users. Our export sales are carried out directly by our own production facilities and through Mechel Service Global's distribution network.

Our production facilities supply high-quality rolled steel products to the subsidiaries of Mechel Service Global in Western Europe either directly, or through the logistics center in the Port of Antwerp. Our logistics center in the Port of Antwerp also allows us to sell high-quality rolled steel products to manufacturing and service companies on a walk-in basis.

In 2017, ferrosilicon sales outside of Russia were principally to Japan. Deliveries to Japanese customers were made on CIF delivery terms (including transportation by rail, handling in ports of Nakhodka, Vladivostok and Vostochny and use of major container lines in major Japanese ports and insurance). We sell ferrosilicon based both on long-term contracts and on a spot basis.

Distribution

Rail transportation is used for most shipments from our production facilities and warehouses to end customers, wholesale warehouses or seaports.

Market share and competition

In our core export markets, we primarily compete with other Russian producers, as well as producers from China, Ukraine, Turkey and Kazakhstan. The leading global steel manufacturers have been increasingly focused on value-added and higher-priced products. The principal competitive factors include price, distribution, product quality, product range and customer service.

In the Russian market, we compete on the basis of price and quality of steel products, their added value, product range and service, technological innovation and proximity to customers. The Russian steel industry is characterized by a relatively high concentration of production, with the six largest integrated steel producers, including ourselves, accounting for 85.2% of overall domestic crude steel output in 2017, according to Metal Expert.

The following is a brief description of Russia's five largest steel producers excluding ourselves:

Novolipetsk Steel PAO (NLMK) is Russia's largest steel manufacturer by volume, accounting for 22.6% of the volume of Russian commodity steel production in 2017. NLMK produces flat products (hot-rolled and cold-rolled), galvanized products and slabs, as well as long products. The company's production facilities are located in Lipetsk (NLMK), in the Sverdlovsk region (long products producer NLMK-Ural and wire products producer NLMK-Metalware) and in the Kaluga region (long products producer NLMK-Kaluga). NLMK exported 61.7% of its steel products in 2017. Domestically, NLMK's largest customers are in the construction and oil and gas industries, followed by companies in the automotive sector. NLMK also controls iron ore producer Stoilensky GOK and coke producer Altai-Koks.

Severstal PAO (**Severstal**) is Russia's second largest steel manufacturer by volume on a consolidated basis, accounting for 16.6% of the volume of Russian commodity steel products output in 2017. The company specializes in flat products which constitute a significant part of its production. Severstal is the second-leading producer of flat products, accounting for 15.4% of Russia's total flat products output in 2017. Domestic sales of flat products accounted for 62.9% of Severstal's output in 2017, with the oil and gas industry and automotive sector as its leading customers. Severstal controls coal producer Vorkutaugol and iron ore producers Karelsky Okatysh and Olenegorsky GOK, which satisfy a portion of Severstal's coking coal and iron ore requirements.

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*Magnitogorsk Iron & Steel Works PAO (**MMK**)* is Russia's third largest steel manufacturer by volume, accounting for 16.0% of the volume of Russian commodity steel products output (including long products, flat products and semi-finished products) in 2017. MMK's product mix is comprised mostly of flat products, which accounted for 83.8% of its commercial steel products output (including semis) in 2017. Domestically, MMK controls a significant portion of the supplies to the oil and gas and automotive sectors. MMK exported 38.5% of its output in 2017. Its production facilities are located in Magnitogorsk in the southern Urals. MMK also controls coking coal producer Belon OAO.

*EVRAZ plc (**EVRAZ**)*, which includes Russian steel producers EVRAZ NTMK and EVRAZ ZSMK, had a 15.4% share by volume of Russian commodity steel products output in 2017. EVRAZ focuses on the production of long products, including rebar, wire rod and profiled rolled products (such as rails, beams, channels and angles). EVRAZ exported 58.7% of its output in 2017. EVRAZ also controls iron ore producers EVRAZ KGOK, Evrazruda and EVRAZ Sukha Balka, as well as coking coal producers Yuzhkuzbassugol Coal Company, Rapsadskaya PAO and Mezhegeyugol.

*Metalloinvest Holding Company AO (**Metalloinvest**)*, whose Russian assets consist of Oskol Electrometallurgical Plant AO (**OEMK**) and Ural Steel AO, had a 6.1% share by volume of Russian commodity steel products output in 2017. OEMK produces long products only, and Ural Steel produces both long and flat products. Metalloinvest exported 64.7% of its commodity steel production in 2017. The company's production facilities are located in the Central and Urals Federal Districts of Russia. Metalloinvest also controls Russia's largest iron ore and pellets production facilities Lebedinsky GOK and Mikhailovsky GOK.

Source: Companies' websites; Metal Expert.

These six companies, including ourselves, can be divided into two groups by product type. MMK, Severstal and NLMK focus mainly on flat products, while we, EVRAZ and Metalloinvest produce primarily long products. Mechel is the fourth largest and most comprehensive producer of special steel and alloys in Russia, accounting for 10.5% of total Russian special steel output by volume in 2017, according to Chermet and Metal Expert. We are also the second largest producer of long steel products (excluding square billets) in Russia by volume, with significant market shares in both regular long steel products and special steel long products, according to Metal Expert.

In the Russian non-special steel long products category, our primary products and our market position by production volume in 2017 were as follows, according to Metal Expert:

Reinforcement bars (rebar) In rebar, we compete in the 6-40 millimeters range. In 2017, the largest domestic rebar producers were NLMK (21.8%), Mechel (17.9%), Severstal (15.9%), EVRAZ (14.4%) and MMK (5.5%).

Wire rod There were five major producers of wire rod in Russia in 2017: Mechel (27.0%), NLMK (18.8%), MMK (15.2%), Severstal (12.1%) and EVRAZ (10.5%).

OEMK, an EAF steel mill specializing in carbon and special steel long products and our special steel competitor, is located in the southwest of Russia and serves customers in the pipe, engineering and ball-bearing industries.

According to Metal Expert and Chermet, we were one of the leading producers in Russia of special steel long products (bearing, tool, high-speed and stainless long steel) in 2017, producing 9.7% of the total Russian output by volume, and we held significant shares of Russian production volumes in 2017 of stainless long products (22.7%), tool steel (31.3%) and high-speed steel (28.0%).

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The following tables set forth additional information regarding our 2017 market share in Russia for various categories of steel products.

All long products (excluding square billets)

Manufacturer	Production (In thousands of tonnes, except for percentages)	Market Share by Production Volume
EVRAZ	4,709	25.5%
Mechel	3,166	17.2%
NLMK	2,205	12.0%
Severstal	1,804	9.8%
MMK	1,706	9.3%
Metalloinvest	1,014	5.5%
Other	3,833	20.7%
Total	18,437	100.0%

Source: Metal Expert.

Long products Wire rod⁽¹⁾

Manufacturer	Production (In thousands of tonnes, except for percentages)	Market Share by Production Volume
Mechel	820	27.0%
NLMK	569	18.8%
MMK	461	15.2%
Severstal	366	12.1%
EVRAZ	318	10.5%
Other	500	16.4%
Total	3,034	100.0%

Source: Metal Expert.

(1) Including wire rod further processed into wire and other products within the same holding company.
Long products Rebar

Manufacturer	Production (In thousands of tonnes, except for percentages)	Market Share by Production Volume
NLMK	1,590	21.8%
Mechel	1,307	17.9%
Severstal	1,160	15.9%
EVRAZ	1,051	14.4%
MMK	399	5.5%
Other	1,801	24.5%
Total	7,308	100.0%

Source: Metal Expert.

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Manufacturer	Production (In thousands of tonnes, except for percentages)	Market Share by Production Volume
VMZ Red October	16.2	66.8%
Mechel	4.2	17.3%
Other	3.8	15.9%
Total	24.2	100.0%

Source: Metal Expert.

Wire products

Manufacturer	Production (In thousands of tonnes, except for percentages)	Market Share by Production Volume
Mechel	507.2	21.5%
MMK-Metiz	406.1	17.2%
Severstal-Metiz	404.9	17.1%
NLMK-Metalware	273.4	11.6%
EVRAZ	201.2	8.5%
Other	570.3	24.1%
Total	2,363.1	100.0%

Source: Metal Expert.

Wire products High-tensile wire

Manufacturer	Production (In thousands of tonnes, except for percentages)	Market Share by Production Volume
Mechel	63.1	68.1%

Severstal-Metiz	20.4	22.0%
MMK-Metiz	9.2	9.9%
Total	92.7	100.0%

Source: Metal Expert.

According to Metal Expert, Bratsk Ferroalloy Plant is the fourth largest Russian producer of ferrosilicon by volume. In 2017, we had a 12.8% market share by volume of Russian ferrosilicon production.

Following is a brief description of Russia's other largest ferrosilicon producers, according to Metal Expert and the companies' data:

Kuznetsk Ferroalloys AO (**Kuznetsk Ferroalloys**) is the largest Russian ferrosilicon producer, with a 47.8% market share by production volume in 2017. Kuznetsk Ferroalloys also produces microsilica and quartzite. It is primarily export-oriented, having exported 91.9% of its ferrosilicon production volume in 2017.

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Chelyabinsk Electrometallurgical Plant AO (ChEMK) is the second largest Russian ferrosilicon producer, with a 16.7% market share by production volume in 2017. In addition it produces ferrochrome, silicomanganese and silicocalcium. ChEMK exports half of its production. In 2017, it exported 50.1% by volume of its ferrosilicon production.

Yurginsk Ferroalloy Plant AO (Yurginsk Ferroalloy Plant) is the third largest Russian ferrosilicon producer, with a 16.0% market share by production volume in 2017. Yurginsk Ferroalloy Plant also produces microsilica. It is primarily export-oriented, having exported 99.1% of its ferrosilicon production volume in 2017.

The following table sets forth additional information regarding our 2017 ferrosilicon market share in Russia.

Manufacturer	Region	Production	Market Share by Production Volume
	(In thousands of tonnes, except for percentages)		
Kuznetsk Ferroalloys	Kemerovo	257.8	47.8%
ChEMK	Chelyabinsk	90.0	16.7%
Yurginsk Ferroalloy Plant	Kemerovo	86.3	16.0%
Bratsk Ferroalloy Plant	Irkutsk	68.7	12.8%
NLMK	Lipetsk	23.4	4.4%
Serov Ferroalloys Plant	Sverdlovsk	12.6	2.3%
Total		538.8	100.0%

Source: Metal Expert.

Raw materials

The principal raw materials we use in pig iron production are iron ore products (sinter of our own production and purchased oxidized pellets), coke and fluxing additions. Pig iron is made in blast furnaces. For sinter production we use iron ore concentrate. Iron ore concentrate is converted into sinter at Chelyabinsk Metallurgical Plant. In 2017, our steel-making operations used 6.2 million tonnes of iron ore feed, approximately 22% in the form of pellets and 68% in the form of sinter, and we internally sourced approximately 40% of our total iron ore feed requirements. In 2017, Korshunov Mining Plant supplied our steel segment with 2.5 million tonnes of iron ore concentrate. In 2017, we purchased most of the remaining part of our iron ore feed from Russian suppliers such as Kachkanarsky GOK, Kovdorsky GOK, Lebedinsky GOK, Vysokogorsky GOK, Mikhailovsky GOK and Bakalskoye Rudoupravlenie under monthly, quarterly and annual contracts on market terms.

We process coking coal concentrate into coke at Mechel Coke and Moscow Coke and Gas Plant. In 2017, our production facilities used 3.6 million tonnes of coking coal concentrate (including 2.9 million tonnes used by Mechel Coke and 0.7 million tonnes used by Moscow Coke and Gas Plant), and 85% of total usage was sourced internally. Coke is used both in pig iron production at Chelyabinsk Metallurgical Plant and in ferrosilicon production at Bratsk Ferroalloy Plant. In 2017, we produced and internally used approximately 2.0 million tonnes of coke as well as

produced for sale to third parties another approximately 0.8 million tonnes of coke.

Our Pugachevsky Open Pit produces limestone which after processing into lime and flux is used by our own steel production facilities. In 2017, our limestone production amounted to 1.9 million tonnes.

We produce 87.8% of steel in BOFs. In steel-making, scrap is used in the composition of feedstock, and we are approximately 80.3% self-sufficient in this raw material, which amounts to 256.4 thousand tonnes of scrap, sourcing the balance from various scrap traders.

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In 2017, our production facilities used 31.3 thousand tonnes of ferrosilicon (including 25.7 thousand tonnes at Chelyabinsk Metallurgical Plant, 2.9 thousand tonnes at the Chelyabinsk branch of Urals Stampings Plant and 2.7 thousand tonnes at Izhstal), almost all of which was supplied by Bratsk Ferroalloy Plant.

Steel-making requires significant amounts of electricity to power EAFs, ladle furnaces and rolling mills and to produce sinter. In 2017, our steel segment operations consumed approximately 3.2 billion kWh of electricity. Chelyabinsk Metallurgical Plant, Moscow Coke and Gas Plant and Urals Stampings Plant have power co-generation facilities, which produced 1.2 billion kWh of electricity in 2017, yielding approximately 29% self-sufficiency overall for our group, which consumed 4.3 billion kWh of electricity in 2017. The balance was purchased in the wholesale and retail electricity markets. Aside from Southern Kuzbass Power Plant, which runs on steam coal and middlings, our power generating facilities work on blast furnace and coke gas, which are by-products of our steel-making and coke-chemical operations, and natural gas, which we purchase from Novatek, Rosneft and Gazprom. In 2017, we consumed 2.3 billion cubic meters of blast furnace gas, 485.1 million cubic meters of coke gas and 893.3 million cubic meters of natural gas. In 2017, Southern Kuzbass Power Plant consumed 1.3 million tonnes of steam coal and middlings sourced both from our own coal mining assets and from third parties.

Large amounts of water are also required in the production of steel. Water serves as a re-solvent, accelerator and washing agent. Water is used to cool equipment components, to carry away waste, to help produce and distribute heat and power and to dilute liquids. One of the principal sources of water is rivers, and many of our production facilities recirculate a portion of water used for their production needs. For example, Chelyabinsk Metallurgical Plant sources 88.1% of its water needs from recirculated water and the rest from a local river. Izhstal sources 82.0% of its water needs from recirculated water, 8.7% from recycled water and the rest from a storage reservoir. Beloretsk Metallurgical Plant sources 73.7% of its water needs from recirculated and recycled water and the rest from a storage reservoir and a local river.

Transportation costs are a significant component of our production costs and a factor in our price-competitiveness in export markets. Rail transportation is our principal means of transporting raw materials from our mines to processing facilities and products to domestic customers and to ports for shipment overseas.

For a description of how seasonal factors impact our use and reserve levels of raw materials, see Item 5. Operating and Financial Review and Prospects – Seasonality.

Trade restrictions

Trade restrictions in the form of tariffs and duties are widespread in the steel industry. However, we are less exposed than most other Russian steel producers to these trade restrictions as restrictions on Russian exports have mainly been directed against flat products, whereas most of our exports consist of long products. In addition, the abolition by the Russian government of steel export duties in 2002 has also effectively improved exports of Russian steel. In the future the Russian government may restore export duties on steel products and may also impose export duties on some raw materials, such as coal and iron ore concentrate.

In February 2008, an antidumping duty in the amount of 17.8% was imposed on exports to the European Union of ferrosilicon produced by our subsidiary Bratsk Ferroalloy Plant for a period of five years. In February 2013, the European Commission initiated an expiry review of the antidumping measures applicable to imports of ferrosilicon. In April 2014, the antidumping duty was extended for another five years.

Quartzite Production

We hold the subsoil license for the Uvatskoye deposit of quartzite and quartzite sandstones, a raw material used for ferrosilicon production. The deposit is accessible by unpaved road and located 20 kilometers southwest of Nizhneudinsk in the Irkutsk region. In 2011, we conducted successful technological tests of an experimental

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batch of quartzite for smelting of ferrosilicon. We completed the exploration of the alluvial part of the southern area of the Uvatskoye deposit and applied to the Department for Subsoil Use for the Irkutsk region (**Irkutsknedra**) with a plan for the pilot commercial development of the alluvial part of the southern area. Irkutsknedra agreed the plan and recommended further geologic exploration within the entire license area of the Uvatskoye deposit. In 2012, drilling and sampling activities were conducted. Since 2013, we have been carrying out the pilot commercial development of the alluvial part of the southern area of the Uvatskoye deposit, with a view to develop the processing methods and technical and economic parameters of the deposit. In 2017, laboratory studies of selected cores of the bedrock of the deposit were completed. At present, feasibility study of the deposit conditions is being worked out. In light of the above, we are not able to state the amount of proved reserves for the Uvatskoye quartzite deposit.

The table below sets forth certain information regarding the subsoil license for our quartzite and quartzite sandstones deposit.

License Area	License Holder	License Expiry Date	Status⁽¹⁾	Area (sq. km)	Year Commenced	Surface and Use Rights
Uvatskoye	Bratsk Ferroalloy Plant	July 2033	Exploration and development	18.21	n/a	Lease

(1) Exploration and development refers to sites where preliminary work and drilling for calculation of mineral reserves are being carried out.

Power Segment

Our power segment generates and supplies electricity, heat energy and other power resources to our group companies and to external consumers. It enables us to market high value-added products made from our steam coal, such as electricity and heat energy, and to increase the electric power self-sufficiency of the mining and steel segments of our business. Our power segment consists of a power generating plant Southern Kuzbass Power Plant and a power distribution company Kuzbass Power Sales Company.

The following table sets out total volumes of electricity production by our group.

	2017	2016	2015
	(In million kWh)		
Electricity	3,427.4	3,378.2	4,137.4
<i>Southern Kuzbass Power Plant</i>			

Southern Kuzbass Power Plant is located in Kaltan in the Kemerovo region, which is in the southern part of Russia's coal-rich Kuzbass district. It has a total installed capacity of 554 MW and installed heat capacity of 506 Gcal/h. In 2017, the plant generated 1,845.7 million kWh of electricity and 670.1 thousand Gcal of heat energy. We acquired Southern Kuzbass Power Plant in 2007.

Southern Kuzbass Power Plant uses steam coal as fuel, which is supplied to it from local sources, including our Southern Kuzbass Coal Company. In 2017, it consumed 624.5 thousand tonnes of steam coal and middlings sourced from Southern Kuzbass Coal Company and Elgaugol.

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The generation facilities of Southern Kuzbass Power Plant are listed below:

Generation Unit No.	Year of Manufacture	Month and Year of Commissioning at		Installed Capacity (MW)	Electricity Production in 2017 (million kWh)
		Southern Kuzbass Power Plant			
VK-50-2 LMZ	1950	April 1951		53	61.1
VK-50-2 LMZ	1950	November 1951		53	0
VK-50-2 LMZ	1950	August 1952		53	161.2
VK-50-2 LMZ	1952	February 1953		53	158.1
T-115-8,8 LMZ	1996	December 2003		113	470.2
T-88/106-90 LMZ	1953	July 1954		88	297.9
VK-50-2 LMZ	1954	December 1954		53	157.9
T-88/106-90 LMZ	1953	September 1956		88	539.3
Total				554	1,845.7

The plant sells electricity and capacity on the wholesale market only, as well as heat energy directly to consumers. In Russia it is common for thermal power plants to produce and sell heat energy, sometimes in the form of industrial steam and sometimes in the form of hot water, for business and residential heating and household use, which is distributed in towns and cities by a network of hot water distribution pipes. Southern Kuzbass Power Plant's heat energy is distributed at regulated prices in the form of hot water in the cities of Kaltan, Osinniki and Mezhdurechensk.

Kuzbass Power Sales Company

Kuzbass Power Sales Company is the largest power distribution company in the Kemerovo region. Its marketed power volume in 2017 amounted to approximately 9.4 billion kWh. We acquired Kuzbass Power Sales Company in 2007. The addition of Kuzbass Power Sales Company, along with Southern Kuzbass Power Plant, allows us to increase revenues in our power segment.

Kuzbass Power Sales Company sells electricity on the retail and wholesale markets. The company sells electricity to households, social infrastructure companies, housing and public utilities and large industrial companies. Due to its area of operation, its primary industrial consumers are in the mining and processing industries. It supplies electricity to end consumers directly and also through one regional agent.

The company is included in the Register of Guaranteeing Suppliers of the Kemerovo region. For a discussion of guaranteeing suppliers, see [Regulatory Matters](#) [Regulation of Russian Electricity Market](#) [Sales of electricity](#) [Retail electricity market](#).

Mechel Energo

Mechel Energo's core activity is the supply of electricity, heat energy in the form of hot water and steam, compressed air, oxygen, nitrogen, liquid nitrogen and liquid oxygen. In addition, it coordinates the supply of energy to our production facilities. The company has a separate business unit in Izhevsk, as well as branches in Chelyabinsk (including production department in Chebarkul), Beloretsk and Vidnoye. Mechel Energo also performs the functions

of the sole executive body of its subsidiary Southern Kuzbass Power Plant.

Mechel Energo supplies heat energy (in the form of hot water and steam) at regulated prices to its consumers, including residential consumers and commercial customers, in the cities of Vidnoye, Chelyabinsk, Chebarkul, Beloretsk and Izhevsk.

Mechel Energo has facilities for the production of power resources and operates using mainly blast furnace and coke gas, which are by-products of our steel-making and coke-chemical operations, and natural gas, which we purchase from Novatek, Rosneft and Gazprom.

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Mechel Energo's sales amounted to approximately 3.3 billion kWh of electricity purchased in the wholesale and retail electricity markets and 3.8 million Gcal of heat energy in 2017.

Capital Investment Program

We continually review our capital investment program in light of our cash flow, liquidity position, results of operations and market conditions. In light of the above factors, we may adjust our capital investment program. Our planned capital expenditures for 2018 are increased by approximately 107% as compared to 2017. See Item 3. Key Information Risk Factors Risks Relating to Our Financial Condition and Financial Reporting We will require a significant amount of cash to fund our capital investment program.

Our capital investment program includes capital spending of up to 33.4 billion rubles for 2018-2020. Our capital investment program is primarily targeted at expanding the mining segment and increasing the efficiency of the steel segment and includes, among others, investments of approximately 24.4 billion rubles in mining and approximately 5.9 billion rubles in steel. However, our ability to fully realize our capital investment program is constrained by our ability to generate cash flow, obtain additional financing and refinance or restructure existing indebtedness. We may be limited in our ability to obtain financing on a project finance basis which may impose further restrictions on the operations of the project or require the economic returns of the project to be shared with investors or lenders.

In the mining segment, we expect to direct approximately 6.7 billion rubles for the development of the Elga coal deposit in 2018-2020. We will invest approximately 0.7 billion rubles in 2018-2020 for increasing coal production at Sibirginskaya Underground which is part of Southern Kuzbass Coal Company.

The steel segment projects are targeted at expanding the share of high value-added products which we produce, while maintaining existing output, and are mainly focused on Chelyabinsk Metallurgical Plant. The main project, initiated in 2008, is the construction of a universal rail and structural rolling mill with a capacity of 1.1 million tonnes, which allows us to reduce the proportion of lower-value semi-finished products sales by increasing the production of high-quality rolled steel products and rails. The universal rail and structural rolling mill was launched in July 2013.

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The table below sets forth the major items of our capital expenditures by segment and facility for 2018-2020 (including cumulatively the expenditures made since the launch of the relevant project):

	Planned Increase in Capacity and/or Other Improvement	Approximate Total Planned Expenditures⁽¹⁾	Year of Project Launch	Estimated Year of Completion
(In millions of Russian rubles)				
Mining Segment				
Maintenance expenditures	Maintaining current coal and iron ore mining and coal and iron ore concentrate production	14,556	2018	2020
<i>Elgaugol</i>				
Construction of the Elga coal complex facilities	Development of the coal deposit with increase of production capacity to 11.7 million tonnes per annum	17,678	2009	2020
<i>Elga-road</i>				
Construction of the rail line to the Elga deposit	Providing access to the coal deposit	66,102	2009	2020
<i>Southern Kuzbass Coal Company</i>				
Increase of coal production at Sibirginskaya Underground	Increase of production output to 2.4 million tonnes per annum	5,010	2009	2020
Steel Segment				
Maintenance expenditures	Maintaining current output capacity	1,732	2018	2020
<i>Chelyabinsk Metallurgical Plant</i>				
Construction of rolling facilities in blooming building	Introducing new types of rolled products for construction industry with a design capacity of 1.1 million tonnes per annum	21,761	2009	2018
Reconstruction of oxygen-converter production	Increase of cast weight to 152 tonnes	4,845	2009	2020
Power segment				
Maintenance expenditures	Maintaining current output capacity	1,069	2018	2020
Transport division				
Maintenance expenditures	Maintaining current output capacity	1,303	2018	2020
<i>Port Posiet</i>				
Technical modernization of Port Posiet	Increase of cargo-handling capacity to 9.0 million tonnes per annum	4,345	2009	2019

(1)

We estimate that approximately 1,851 million rubles of planned expenditures were spent on the aforementioned projects in 2017. In 2017, we spent 5,576 million rubles in total on capital expenditures.

Research and Development

We maintain research programs at the corporate level and at certain of our business units to carry out research and applied technology development activities. At the corporate level, we have a Department of Technology Development at Mechel-Steel Management (two employees) and a Production and Technical Department at Mechel Mining Management (12 employees). In December 2008, we established Mechel Engineering with a headcount of 214 employees to carry out design and engineering works to increase the efficiency of our mining business. The head office of Mechel Engineering is located in Novosibirsk. Geological

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services provided by Mechel Engineering include: (1) geological survey work related to prospecting and developing minerals and coal deposits; (2) hydrogeological survey work; (3) monitoring of geological environment; (4) preparation of geological materials for feasibility studies and preparation of geological reports with reserves estimation; (5) test drilling (methane drainage borehole); and (6) computer simulation of coal and ore deposits.

In the course of our research and development we also contract with third party consultants and Russian research institutions.

In addition to these activities performed at our corporate level, each of Chelyabinsk Metallurgical Plant, Beloretsk Metallurgical Plant and Urals Stampings Plant have specialized research divisions with a total of 130 employees involved in the improvement of existing technologies and products.

Our research and development expenses in the years ended December 31, 2017, 2016 and 2015 were not significant.

Insurance

Most of our Russian production facilities have no comprehensive insurance coverage against the risks associated with the business in which we operate, other than insurance required under Russian law, existing collective agreements, loan agreements or other undertakings. Our Russian facilities have a number of compulsory insurance policies: liability of the owner of a hazardous facility for injury in an accident at a hazardous facility, third-party liability motor vehicle insurance and other forms of insurance. Some of our facilities provide their workers with medical insurance and accident and health insurance in accordance with existing collective bargaining agreements. In addition, most of our Russian facilities have voluntary motor vehicle insurance, and some of our facilities have cargo insurance, property insurance (real property and machinery) and certain types of third-party liability insurance.

Some of our international production facilities are not covered by comprehensive insurance typical for such operations in Western countries. However, they all have the compulsory insurance coverage required under the law of their respective jurisdictions: motor vehicle liability insurance, pollution liability insurance, employer liability, etc. Furthermore, some of our international facilities carry insurance coverage for their property (real property and machinery, inventory, motor vehicle), liability (third-party liability, professional and product liability), cargo (including freight insurance), accounts receivable, financial losses related to the abuse of the employees, as well as medical insurance, litigation insurance and accident insurance for their workers.

Environmental Protection

Similar to other companies operating in the industries in which we operate, our activities may have an adverse impact on the environment due to emission of coal and coke dust and other pollutants and hazardous materials into the atmosphere, discharge of polluted waste water into the environment and generation of waste and hazardous materials that need to be disposed of or reused without serious damage to the environment.

Our environmental policy has the following key components:

implement formal environmental management systems that are aligned with applicable international standards;

identify, assess, monitor, control and manage significant environmental risks;

establish clear and meaningful environmental objectives and targets aimed at continuous improvement;

implement, maintain and regularly test emergency response plans;

identify potential environmental emergencies; and

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comply with all applicable laws and regulations and when practicable, strive to exceed those requirements. We have been developing and implementing environmental programs at all of our mining, steel and power subsidiaries. Such programs include measures to enforce our adherence to the requirements and limits imposed on air and water pollution, as well as disposal of industrial waste, introduction of environmentally friendly industrial technologies, the construction of purification and filtering facilities, the repair and reconstruction of industrial water supply systems, the installation of metering systems, reforestation and the recycling of water and industrial waste.

Regulatory Matters

Licensing of Operations in Russia

We are required to obtain numerous licenses, authorizations and permits from the Russian governmental authorities for our operations. Some of our companies need to obtain licenses, authorizations and permits to carry out their activities, including, among other things, for:

the use of subsoil, which is described in more detail in [Subsoil Licensing in Russia](#) below;

the use of water resources;

the emission and discharge of pollutants into the environment;

the handling of waste of a I-IV hazard class;

the handling of industrial explosives;

operation of explosive and fire and chemically hazardous production facilities of a I-III hazard class;

fire control and security;

medical operations;

mine surveying;

loading and unloading operations;

transportation activities;

collection, processing, storage and sale of ferrous and non-ferrous scrap;

works with information classified as state secret;

manufacturing of equipment for nuclear facility; and

operation of radiation source.

The Federal Law On Licensing of Certain Types of Activities, dated May 4, 2011, as amended (the **Licensing Law**), as well as other laws and regulations, sets forth the activities subject to licensing and establish procedures for issuing licenses.

Under the Licensing Law, generally, licenses may be issued for an indefinite term. Some licenses, in particular, licenses for the use of natural resources may be issued for various periods. Upon the expiration of a license, it may be extended upon application by the licensee, provided the licensee is not in violation of the terms and conditions of the license and the relevant regulations.

In accordance with amendments to the Federal Law On the Electric Power Industry No. 35-FZ dated March 26, 2003, as amended (the **Electric Power Industry Law**) and other legislative acts which entered into force on December 29, 2017, power sales activity related to the sale of electricity in the retail electricity market is

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subject to compulsory licensing since December 30, 2018. The Electric Power Industry Law does not provide for licensing procedures, instead the Russian government shall enact an order setting out procedures for obtainment of an electric power sales activity license, which is outstanding as of the date hereof. We aim to file for a license once the procedures are enacted.

Regulatory authorities maintain considerable discretion in the timing of issuing licenses and permits. The requirements imposed by these authorities may be costly, time-consuming and may result in delays in the commencement or continuation of exploration or extraction operations. Further, private individuals and the public at large possess rights to comment on and otherwise participate in the licensing process, including through challenges in the courts. For example, individuals and public organizations may make claims or applications to Rosnedra regarding subsoil abuse, damage to the subsoil and general environmental issues. Rosnedra is required by law to review such claims and applications and to respond to those who file them. The agency can initiate further investigation in the course of reviewing claims and applications, and such investigations can lead to suspension of the subsoil license if the legal grounds for such suspension are identified in the course of the investigation. In addition, citizens may make claims in court against state authorities for failing to enforce environmental requirements (for example, if a breach by the licensee of its license terms caused damage to an individual's health, legal interests or rights), and pursuant to such a claim the court may order state authorities to suspend the subsoil license. Accordingly, the licenses we need may not be issued, or if issued, may not be issued in a timely fashion, or may impose requirements which restrict our ability to conduct our operations or to do so profitably.

As part of their obligations under licensing regulations and the terms of our licenses and permits, some of our companies must comply with numerous industrial standards, employ qualified personnel, maintain certain equipment and a system of quality controls, monitor operations, maintain and make appropriate filings and, upon request, submit specified information to the licensing authorities that control and inspect their activities.

Subsoil Licensing in Russia

In Russia, mining minerals requires a subsoil license from Rosnedra with respect to an identified mineral deposit. In addition to a subsoil license, a subsoil user needs to obtain rights (through ownership, lease or other right) to use a land plot covering the surface of the area where such licensed mineral deposit is located. In addition, as discussed above, operating permits are required with respect to specific mining activities.

The primary law regulating subsoil licensing is the Federal Law On Subsoil, dated February 21, 1992, as amended (the **Subsoil Law**), which sets out the regime for granting licenses for the exploration and extraction of mineral resources. The Procedure for Subsoil Use Licensing, adopted by Resolution of the Supreme Soviet of the Russian Federation on July 15, 1992, as amended (the **Licensing Regulation**), also regulates the licensing of exploration and extraction of mineral resources. According to both the Subsoil Law and the Licensing Regulation, subsurface mineral resources are generally subject to the jurisdiction of the federal authorities.

Among different licenses required for mining minerals in Russia, the two major types of licenses are: (1) an exploration license, which is a non-exclusive license granting the right of geological exploration and assessment within the license area, and (2) an extraction license, which grants the licensee an exclusive right to produce minerals from the license area. In practice, many of the licenses are issued as combined licenses, which grant the right to explore and produce minerals from the license area. A subsoil license defines the license area in terms of latitude, longitude and depth. The subsoil user has the right to develop and use, including sell, mineral resources extracted from the license area for a specified period. The Russian Federation, however, retains ultimate state ownership of all subsoil mineral resources.

There are three major types of payments with respect to the extraction of minerals: (1) a lump-sum payment for granting the right to use subsoil; (2) periodic payments for the use of subsoil under the Subsoil Law; and (3) the mineral extraction tax under the Russian Tax Code. Failure to make these payments could result in refusal

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to grant the right to use subsoil or the suspension or termination of the subsoil license. The Subsoil Law-mandated payments are not material to our mining segment's results of operations. For coal, the basic rate of the mineral extraction tax ranges from 11 to 57 rubles per tonne depending on the type of coal. At the same time, the actual rate of tax in respect of extracted coal is subject to indexation on a quarterly basis taking into account deflator coefficients adopted by the Ministry of Economic Development of the Russian Federation. For iron ore, the mineral extraction tax is 4.8%. In 2017, mineral extraction taxes amounted to 1,283 million rubles, which are included in the consolidated statement of profit (loss) and other comprehensive income (loss) as extraction related overheads.

Currently, extraction licenses and combined licenses are awarded, generally, by tender or auction conducted by special auction commissions of Rosnedra. While such tender or auction may involve a representative of the relevant region, the separate consent of regional authorities is generally not required in order to issue subsoil licenses. The winning bidder in a tender is selected on the basis of the submission of the most technically competent, financially attractive and environmentally sound proposal that meets published tender terms and conditions. At an auction, the success of a bid is determined by the attractiveness of the financial proposal. In limited circumstances, extraction licenses may also be issued without holding an auction or tender, for instance to holders of exploration licenses who discover mineral resource deposits through exploration work conducted at their own expense. Regional authorities may issue extraction licenses for common mineral resources, such as clay, sand or limestone.

Pursuant to the Subsoil Law, a subsoil plot is provided to a subsoil user as a mining allotment, i.e. a geometric block of subsoil. Preliminary mining allotment boundaries are determined at the time the license is issued. Following the development and approval of a technical plan in accordance with established procedure, documents defining the adjusted mining allotment boundaries are incorporated as an integral part into the license. Pursuant to Resolution No. 118 of the Government of the Russian Federation dated March 3, 2010, as amended, a special commission comprised of representatives from the Ministry of Natural Resources and Ecology, Rosnedra, Rosprirodnadzor, Rostekhnadzor and relevant local authorities approve development plans and other project documentation relating to the use of subsoil plots.

The term of the license is set forth in the license. Under the Subsoil Law, exploration licenses are generally issued for a term of up to five years and up to 10 years for geological surveys of internal sea waters, territorial sea waters or the continental shelf of the Russian Federation. In accordance with amendments to the Subsoil Law that entered into force in January 2014, exploration licenses with respect to subsoil plots partially or fully located in certain constituent entities of the Russian Federation can be issued for a term of up to seven years. Extraction licenses are issued for the term of the expected operational life of the field based on a feasibility study that provides for rational use and protection of the subsoil. In the event that a prior license with respect to a particular field is terminated early (for example, when a license is withdrawn due to non-usage of the licensed subsoil), an extraction license may have a one year term until a new licensee is determined, but is generally granted to another user for the term of the expected operational life of the field based on a feasibility study. Licensees are also allowed to apply for extensions of such licenses for the purposes of completing the exploration and development of the field, or remediation activities in the absence of violations of the terms and conditions of the license. The term of a subsoil license runs from the date the license is registered with Rosnedra.

Issuance of licenses

Subsoil licenses are issued by Rosnedra. Most of the currently existing extraction licenses owned by companies derive from: (1) pre-existing rights granted during the Soviet era and up to the enactment of the Subsoil Law to state-owned enterprises that were subsequently reorganized in the course of post-Soviet privatizations; or (2) tender or auction procedures held in the post-Soviet period. The Civil Code, the Subsoil Law and the Licensing Regulation contain the major requirements relating to tenders and auctions. The Subsoil Law allows extraction licenses to be issued without a

tender or auction procedure only in limited circumstances, such as instances when a mineral deposit is discovered by the holder of an exploration license at its own expense during the exploration phase.

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The Subsoil Law permits a subsoil licensee to request an extension of an extraction license for the term of the expected operational life of the subsoil plot in order to complete the extraction from the subsoil plot covered by the license or the procedures necessary to vacate the land once the use of the subsoil is complete, provided the user is not in violation of the terms and conditions of the license and the relevant regulations.

In order to extend the period of a subsoil license, a company must file an application with territorial authorities of Rosnedra to amend the license. In addition, as we have seen in practice, a subsoil licensee may be required to prepare and provide to the authority amended technical documentation and development plan of the deposit under the license justifying the requested extension. The costs associated with the license extension are generally not substantial and mainly relate to preparing amendments to the technical documentation and development plan of the subsoil plot. Application to extend the period of subsoil license is typically made six months before its expiration.

To the best of our knowledge, derived from publicly available information, the relevant governmental authorities when determining whether to approve an amendment (including an extension) of a license consider the following: (1) the grounds for the amendments, with specific information as to how the amendments may impact payments by the licensee to the federal and local budgets; (2) compliance of the licensee with the conditions of the license; and (3) the technical expertise and financial capabilities that would be required to implement the conditions of the amended license. We have successfully extended certain of our subsoil licenses which were due to expire for the entire term of the expected operational life of the subsoil plots. The terms of the licenses were extended in accordance with the amendments we made to the development plans of the subsoil plots. Furthermore, as evidenced by a number of court cases during the past several years, license extensions are being rejected predominantly on the grounds of subsoil users being in violation of the material terms of the licenses. Though current regulation does not specify what license terms are material, current practice suggest that regulatory authorities tend to treat as material terms of the license the terms related to license payments, production levels and operational milestones.

The factors that may, in practice, affect a company's ability to obtain the approval of license amendments (including extensions) include: (1) its compliance with the license terms and conditions; (2) its management's experience and expertise relating to subsoil issues; and (3) the relationship of its management with federal and/or local governmental authorities, as well as local governments. For a description of additional factors that may affect Russian companies ability to extend their licenses, see Item 3. Key Information Risk Factors Risks Relating to Our Business and Industry Our business could be adversely affected if we fail to obtain or extend necessary subsoil licenses and permits or fail to comply with the terms of our subsoil licenses and permits. See also Item 3. Key Information Risk Factors Risks Relating to the Russian Federation Legal risks and uncertainties Deficiencies in the legal framework relating to subsoil licensing subject our licenses to the risk of governmental challenges and, if our licenses are suspended or terminated, we may be unable to realize our reserves, which could materially adversely affect our business, financial condition, results of operations and prospects and Item 3. Key Information Risk Factors Risks Relating to the Russian Federation Legal risks and uncertainties Weaknesses relating to the Russian legal system and legislation create an uncertain investment climate.

Transfer of licenses

Licenses may be transferred only under certain limited circumstances that are set forth in the Subsoil Law, including the reorganization or merger of the licensee or in the event that an initial licensee transfers its license to a newly established legal entity in which it has at least a 50% ownership interest, provided that the transferee possesses the equipment and authorizations necessary to conduct the exploration or extraction activity covered by the transferred license.

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Maintenance and termination of licenses

A license granted under the Subsoil Law is accompanied by a licensing agreement. The law provides that there will be two parties to any subsoil licensing agreement: the relevant state authorities and the licensee. The licensing agreement sets out the terms and conditions for the use of the subsoil.

Under a licensing agreement, the licensee makes certain environmental, safety and extraction commitments. For example, the licensee makes an extraction commitment to bring the field into extraction by a certain date and to extract an agreed-upon volume of natural resources each year. The licensing agreement may also contain commitments with respect to the social and economic development of the region. When the license expires, the licensee must return the land to a condition which is adequate for future use. Although most of the conditions set out in a license are based on mandatory rules contained in Russian law, certain provisions in a licensing agreement are left to the discretion of the licensing authorities and are often negotiated between the parties. However, commitments relating to safety and the environment are generally not negotiated.

The fulfillment of license's conditions is a major factor in the good standing of the license. If the subsoil licensee fails to fulfill the license's conditions, upon notice, the license may be terminated or the subsoil user's rights may be restricted by the licensing authorities. However, if a subsoil licensee cannot meet certain deadlines or achieve certain volumes of exploration work or extraction output as set forth in a license, it may apply to amend the relevant license conditions, though such amendments may be denied.

The Subsoil Law and other Russian legislation contain extensive provisions for license termination. A licensee can be fined or the license can be suspended or terminated for repeated breaches of the law, upon the occurrence of a direct threat to the lives or health of people working or residing in the local area, or upon the occurrence of certain emergency situations. A license may also be terminated for violations of material license terms. Although the Subsoil Law does not specify which terms are material, failure to pay subsoil taxes and failure to commence operations in a timely manner have been common grounds for limitation or termination of licenses. Consistent underproduction and failure to meet obligations to finance a project would also be likely to constitute violations of material license terms. In addition, certain licenses provide that the violation by a subsoil licensee of any of its obligations may constitute grounds for terminating the license.

Rosprirodnadzor routinely conducts scheduled and unscheduled inspections for compliance by subsoil users with the terms of their licenses and reports violations to Rosnedra. Rosnedra examines Rosprirodnadzor's reports and, if it finds that these violations constitute sufficient grounds for terminating the license, the Commission for Termination of Subsoil Licenses considers the nature of these violations and recommends that Rosnedra either (i) revoke the license; (ii) notify the subsoil user about the identified violations and potential termination of the license if the subsoil user fails to rectify the identified violations within a prescribed period of time; or (iii) consider that the actions described in (i) and (ii) above are unreasonable and accept the information provided by the subsoil user.

If the licensee does not agree with a decision of the licensing authorities, including a decision relating to the termination of a license or the refusal to change an existing license, the licensee may appeal the decision through administrative or judicial proceedings. In certain cases prior to termination, the licensee has the right to attempt to cure the violation within three months of its receipt of notice of the violation. If the issue has been resolved within such a three-month period, no termination or other action may be taken.

Land Use Rights in Russia

Russian legislation prohibits the carrying out of any commercial activity, including mineral extraction, on a land plot without appropriate surface land use rights. Land use rights are needed and obtained for only the portions of the license area actually being used, including the plot being mined, access areas and areas where other mining-related activity is occurring.

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Under the Land Code, companies generally have ownership or lease rights with regard to land in the Russian Federation.

A majority of land plots in the Russian Federation is owned by federal, regional or municipal authorities who, through bidding (carried out in the form of an auction) or without bidding, can sell, lease or grant other use rights to the land to third parties.

Our mining subsidiaries generally have entered into long-term lease agreements for their surface land within the specified license mining area. Under Russian law, a lessee generally has a right to enter into a new land lease agreement with a lessor upon the expiration of a land lease. In order to renew a land lease agreement, the lessee must apply to the lessor (usually state or municipal authorities) for a renewal prior to the expiration of the agreement. Any land lease agreement for a term of one year or more must be registered with the relevant state authorities.

Environmental Legislation in Russia

We are subject to laws, regulations and other legal requirements relating to the protection of the environment, including those governing the emission and discharge of substances into the air and water, the formation, distribution and disposal of hazardous substances and waste, the cleanup of contaminated sites, flora and fauna protection and wildlife protection. Issues of environmental protection in Russia are regulated primarily by the Federal Law On Environmental Protection dated January 10, 2002, as amended (the **Environmental Protection Law**), as well as by a number of other federal, regional and local legal acts.

Since 2008, the Ministry of Natural Resources and Ecology has been working on significant amendments to the Environmental Protection Law and other regulations. These amendments have already come into force or are gradually coming into force. The purpose of the amendments is to strengthen liability for companies non-compliance with environmental laws and regulations, to improve the distribution of functions between state environmental agencies at both the federal and regional levels, to increase the role of public control over compliance with environmental standards, as well as to stimulate the use of the best available environmental technologies in production processes.

The amendments, in particular, divide objects that have a negative impact on the environment into four categories depending on the degree of impact on the environment. The environmental protection requirements that apply differ depending on the relevant impact category and include environmental impact charges, permission documents and control procedures. The first category includes objects that have a significant negative impact on the environment (to which, therefore, the strictest environmental protection requirements apply) and the fourth category includes objects that have minimal environment impact. Among other things, the adopted amendments contemplate that starting from 2020 charges for environmental impact exceeding regulatory thresholds will increase. Furthermore, the liability for certain environmental violations has been enhanced recently, and the fines for certain environmental offenses, for example, in connection with violations of water use requirements, increased by 15 times the current amounts. See

Item 3. Key Information Risk Factors Risks Relating to Our Business and Industry More stringent environmental laws and regulations or more stringent enforcement or findings that we have violated environmental laws and regulations could result in higher compliance costs and significant fines and penalties, cleanup costs and compensatory damages, or require significant capital investment, or even result in the suspension of our operations, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Pay-to-pollute

The Environmental Protection Law and other Russian environmental protection legislation establish a pay-to-pollute regime administered by federal and local authorities. Pay-to-pollute (or payments for environmental pollution) is a form of mandatory reimbursement to the Russian government for damage caused to the environment.

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The Russian government has established standards relating to the permissible impact on the environment and, in particular, standards of permissible emissions and discharges and waste disposal limits. In case of non-compliance with the statutory standards a company may obtain temporary approved limits on emissions and discharges on the basis of permits valid only during the period of implementation of environmental measures. The establishment of limits is allowed only upon the availability of a plan for emissions and discharges reduction agreed with Rosprirodnadzor. The emissions and discharges reduction plan is required to be implemented within a specific period with an annual submission of a report on its implementation to Rosprirodnadzor. Rosprirodnadzor may revoke the limits, if the company fails to implement measures to reduce emissions and discharges in a timely manner. If, by the end of that period, the company's emissions and discharges are still in excess of the statutory standards, a new plan must be submitted to Rosprirodnadzor for review and approval in order to receive new limits.

Fees for the emission/discharge per tonne of each contaminant into air and water and fees for waste disposal are established by governmental authorities. These fees are determined on a sliding scale for both the statutory standards and individually approved limits on emissions and discharges, as well as for pollution in excess of these limits: the lowest fees are imposed for pollution within the statutory standards, intermediate fees are imposed for pollution within the individually approved temporary limits (within limit fees; exceed the fees within the statutory standards by 5 times) and the highest fees are imposed for pollution exceeding such limits (above-limit fees; exceed the fees within the individually approved temporary limits by 5 times). Thus, above-limit fees exceed the fees within the statutory standards by 25 times. In accordance with recent amendments to the Environmental Protection Law, starting from 2020, environmental impact charges exceeding regulatory thresholds in certain cases will be increased by up to 100 times current fees as statutorily prescribed. Payment of above-limit fees does not relieve the company from the responsibility as provided by Russian law, as well as the development and implementation of environmental measures aimed at reducing the negative impact on the environment. In 2017, we incurred above-limit fees and penalties in Russia in the amount of approximately 67.8 million rubles.

Environmental expert review

According to the Federal Law *On Environmental Expert Review* dated November 23, 1995, as amended (the **EER Law**), environmental expert review is a process of verifying the compliance of project documentation with environmental standards and technical regulations for the purpose of preventing a negative environmental impact. The EER Law provides for the main principles for conducting environmental expert review and for the type of documentation which is subject to such review.

In relation to our operating companies, all documentation underlying the issuance of some of our licenses is subject to environmental expert review.

Review of documentation related to capital construction is regulated under the Urban Development Code, dated December 29, 2004, as amended (the **Urban Development Code**). The Urban Development Code provides for governmental inspection to verify the compliance of project documentation with relevant technical regulations, including sanitary-epidemiological and environmental regulations, requirements for the protection of objects of cultural heritage, as well as fire, industrial, nuclear and other kinds of safety requirements, and compliance with the results of engineering surveys with relevant technical regulations.

Environmental enforcement authorities

Currently state environmental regulation is administered by several federal services and agencies and their regional subdivisions, in particular, Rosprirodnadzor, the Federal Service for Hydrometrology and Environmental Monitoring, Rosnedra, the Federal Agency for Forestry, the Federal Agency for Water Resources and some others. Included in

these agencies' sphere of responsibility are environmental preservation and control, enforcement and observance of environmental legislation, drafting and approving regulations and filing court claims to recover environmental damages. The statute of limitations for such claims is 20 years.

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The Russian federal government and the Ministry of Natural Resources and Ecology are responsible for coordinating the work of the federal services and agencies engaged in state environmental regulation.

The structure of environmental enforcement authorities described above was established in 2004. This structure was subjected to certain changes in 2008 and 2010. In particular, the Ministry of Natural Resources was transformed into the Ministry of Natural Resources and Ecology. In late 2010, this structure was further changed and the powers previously held by Rostekhnadzor in the field of environmental protection regarding the limitation of negative industrial impact, waste treatment and state environmental impact assessments were transferred to Rosprirodnadzor which is coordinated by the Ministry of Natural Resources and Ecology.

Environmental liability

If the operations of a company violate environmental requirements or cause harm to the environment or any individual or legal entity, a court action may be brought to limit or ban these operations and require the company to remedy the effects of the violation. Any company or employees that fail to comply with environmental regulations may be subject to administrative and/or civil liability, and individuals may be held criminally liable. Courts may also impose cleanup obligations on violators in lieu of or in addition to imposing fines or other penalties to compensate for damages.

Subsoil licenses generally require certain environmental commitments. Although these commitments can be substantial, the penalties for failing to comply and the reclamation requirements are generally low; however, failure to comply with reclamation requirements can result in a suspension of mining operations.

Reclamation

We conduct our reclamation activities for land damaged by production in accordance with the Basic Regulation on Land Reclamation, Removal, Preservation, and Rational Use of the Fertile Soil Layer, approved by the Order of the Ministry of Natural Resources No. 525/67 dated December 22, 1995. In general, our reclamation activities involve both a technical stage and a biological stage. In the technical stage, we backfill the pits, grade and terrace mound slopes, level the surface of the mounds, and add clay rock on top for greater adaptability of young plants. In the biological stage, we plant conifers (pine, larch, cedar) on horizontal and gently sloping surfaces and shrubs and bushes to reinforce inclines. Russian environmental regulations do not require mines to achieve the approximate original contour of the property as is required, for example, in the United States. Generally, reclamation should ensure the restoration of disturbed lands for their further use in agricultural, forestry, water management, recreational and other purposes. In 2017, we incurred reclamation costs in Russia of approximately 79 million rubles.

Kyoto Protocol and the United Nations Framework Convention on Climate Change

In December 1997, in Kyoto, Japan, the signatories to the United Nations Convention on Climate Change established individual, legally binding targets to limit or reduce greenhouse gas emissions by developed nations. This international agreement, known as the Kyoto Protocol, came into force on February 16, 2005. At the Doha 2012 United Nations Climate Change Conference Russia, Japan and some other countries announced suspension of their participation in the Kyoto Protocol.

In December 2015 at the Paris climate conference, 196 countries adopted the United Nations Framework Convention on Climate Change which is due to enter into force in 2020. The agreement sets out a global action plan to avoid climate change. The Russian Federation shall develop a long-term plan to reduce greenhouse gas emissions and shall establish a strategy on adaptation to climate change. In 2015-2017, the Ministry of Natural Resources and Ecology of the Russian Federation has approved a number of methodology guidelines for the quantification of the amount of

greenhouse gas emissions by organizations conducting business and other activities in Russia. Further Russia's steps on implementation of the United Nations Framework Convention on

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Climate Change could restrict our operations and/or impose significant costs or obligations on us, including requiring additional capital expenditures, modifications in operating practices, and additional reporting obligations.

Technical Regulations

We are subject to various technical regulations and standards which apply to industrial manufacturing businesses. The Federal Law No. 184-FZ On Technical Regulation dated December 27, 2002, as amended (the **Technical Regulation Law**) has introduced a new regime for the development, enactment, application and enforcement of mandatory rules applicable to production, manufacturing, storage, transportation, sales and certain other operations and processes, as well as new regulations relating to the quality of products and processes, including technical regulations, standards and certification. It was expected that these rules or technical regulations would replace the previously adopted state standards (the so-called GOSTs). However, most technical regulations have not been implemented yet, and, in the absence of such technical regulations, the existing federal laws and regulations, including GOSTs, that prescribe rules for different products and processes remain in force to the extent that they protect health, property, the environment and/or consumers. In addition, the federal standardization authority has declared GOSTs and interstate standards adopted before July 1, 2003 to be the applicable national standards.

In certain circumstances, companies are required to obtain certification of compliance with applicable technical regulations, standards and terms of contracts. A number of our products must be certified. Where certification is not mandatory, a company may elect voluntary certification by applying for a compliance certificate from the relevant authorities. Following the issuance of such certificate, the applicant has the right to use the relevant compliance mark on its products.

Health and Safety Regulations in Russia

Due to the nature of our business, much of our activity is conducted at industrial sites with a large number of workers, and industrial safety and workplace safety issues are of significant importance to the operation of these sites.

The principal law regulating industrial safety is the Federal Law On Industrial Safety of Hazardous Production Facilities, dated July 21, 1997, as amended (the **Safety Law**). The Safety Law applies, in particular, to production facilities and sites where certain activities are conducted, including sites where load-lifting machines are used, where melts of ferrous and nonferrous metals are produced, used, stored and transported, where hazardous substances are stored and used (including allowed concentrations) and where certain types of mining is done. There are also regulations that address safety rules for coal mines, the production and processing of ore, the blast-furnace industry, steel smelting, alloy production and nickel production. Additional safety rules also apply to certain industries, including fuel and energy complex, metallurgical and coke-chemical industries and the foundry industry.

The Safety Law provides for hazardous production facilities of four classes from class IV to class I, with class IV being less hazardous and class I being the most hazardous. The safety and compliance requirements set up by the Safety Law apply to each facility depending on their class of hazard. Each existing hazardous production facility was to be re-registered with the state register by January 1, 2014 and be assigned with a hazard class. We re-registered hazardous production facilities at our operations in accordance with the applicable law.

Any construction, reconstruction, liquidation or other activities in relation to regulated industrial sites is subject to a state industrial safety review. Any deviation from project documentation in the process of construction, reconstruction or liquidation of industrial sites is prohibited unless reviewed by a licensed expert organization and approved by Rostekhnadzor.

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In addition, the Safety Law establishes an alternative form of industrial safety regulation that is based on risk assessment rather than prescriptions of obligatory requirements and standards imposed by Rostekhnadzor. A company that operates a hazardous production facility may develop a safety case, a document which describes that the facility has been designed and operated in a way to limit any risks of major accident. The Safety Law considers that in drafting the safety case, the relevant companies will be able to refer to specific safety arrangements and safety analyses as confirmation of having certain safety measures in place. To make these arrangements fully operational further changes will need to be introduced into relevant laws and regulations.

Companies that operate such production facilities and sites have a wide range of obligations under the Safety Law and the Labor Code of Russia of December 30, 2001, as amended (the **Labor Code**). In particular, they must limit access to such sites to qualified specialists, maintain industrial safety controls and carry insurance for third-party liability for injuries caused in the course of operating industrial sites. Russian regulations require these companies to enter into contracts with professional emergency response units or create their own emergency response services in certain cases, conduct personnel trainings and drills, create systems to cope with and notify the authorities of accidents and maintain these systems in good working order. Effective from January 1, 2014, companies that operate industrial sites of hazard classes I and II must implement industrial safety management systems to prevent accidents and incidents at hazardous production facilities and develop certain emergency response plans.

Companies that operate production sites of hazard classes I and II and handle hazardous substances in quantities set by the Safety Law must also prepare declarations of industrial safety which summarize the risks associated with operating a particular production site and measures the company has taken and will take to mitigate such risks and use the site in accordance with applicable industrial safety requirements. Such declarations must be adopted by the chief executive officer of the company, who is personally responsible for the completeness and accuracy of the data contained therein. The industrial safety declaration as well as a state industrial safety review are required for the issuance of a license permitting the operation of a hazardous production facility.

Rostekhnadzor has broad authority in the field of control and management of industrial safety. In case of an accident, a special commission led by a representative of Rostekhnadzor conducts a technical investigation of the cause. The company operating the hazardous production facility where the accident took place bears all costs of an investigation. Rostekhnadzor officials have the right to access production sites and may inspect documents to ensure a company's compliance with safety rules. Rostekhnadzor may suspend for up to 90 days or initiate a court decision to terminate operations of companies and/or impose administrative liability on officers of such companies. Moreover, new rules on public control came into force in 2017. This type of control is performed on a voluntary basis by public inspectors who comply with certain qualification requirements.

Any company or individual violating industrial safety rules may incur administrative and/or civil liability, and individuals may also incur criminal liability. A company that violates safety rules in a way that negatively impacts the health of an individual may also be obligated to compensate the individual for lost earnings, as well as health-related damages.

Russian Antimonopoly Regulation

The Federal Law On Protection of Competition, dated July 26, 2006, as amended (the **Competition Law**), provides for a mandatory pre-approval by the FAS of the following actions:

other than in respect to financial organizations, such as banks, an acquisition by a person (or its group) of more than 25% of the voting shares of a Russian joint-stock company (or one-third of the interests in a Russian limited liability company), except upon incorporation, and the subsequent increase of these stakes to more than 50% of the total number of the voting shares and more than 75% of the voting shares (one-half and two-thirds of the interests in a Russian limited liability company), or acquisition

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by a person (or its group) of ownership or rights of use with respect to the core production assets (other than land and non-industrial buildings, constructions, premises and parts thereof or constructions in progress) and/or intangible assets of an entity which are located in Russia if the balance sheet value of such assets exceeds 20% of the total balance sheet value of the core production and intangible assets of such entity, or obtaining rights to determine the conditions of business activity of a Russian entity or to exercise the powers of its executive body by a person (or its group), or an acquisition by a person (or its group) of more than 50% of the voting shares (interests) of a foreign entity, which has supplied goods, works and/or services to Russia in an amount exceeding 1 billion rubles in the preceding year, or other rights to determine the conditions of business activity of such entity or to exercise the powers of its executive body, if, in any of the above cases, the aggregate asset value of an acquirer and its group together with a target and its group (excluding the asset value of the seller and its group, if as a result of the acquisition the seller and its group cease to determine the conditions of business activity of the target) exceeds 7 billion rubles and at the same time the total asset value of the target and its group exceeds 400 million rubles, or the total annual revenues of such acquirer and its group, and the target and its group for the preceding calendar year exceed 10 billion rubles and at the same time the total asset value of the target and its group exceeds 400 million rubles;

mergers and consolidations of entities, other than financial organizations, if their aggregate asset value (the aggregate asset value of the groups of persons to which they belong) exceeds 7 billion rubles, or total annual revenues of such entities (or groups of persons to which they belong) for the preceding calendar year exceed 10 billion rubles;

founding of a business entity, if its charter capital is paid by the shares (or limited liability company interests) and/or the assets (other than cash) of another business entity (other than financial organization) or the newly founded business entity acquires shares (or limited liability company interests) and/or the assets (other than cash) of another business entity based on a transfer act or a separation balance sheet and rights in respect of such shares (or limited liability company interests) and/or assets (excluding monetary funds) as specified above, at the same time provided that the aggregate asset value of the founders (or group of persons to which they belong) and the business entities (or groups of persons to which they belong) which shares (or limited liability company interests) and/or assets (other than cash) are contributed to the charter capital of the newly founded business entity exceeds 7 billion rubles, or total annual revenues of the founders (or group of persons to which they belong) and the business entities (or groups of persons to which they belong) which shares (or limited liability company interests) and/or assets are contributed to the charter capital of the newly founded business entity for the preceding calendar year exceed 10 billion rubles; and

entering into joint venture agreements between competitors, if their aggregate asset value (the aggregate asset value of the groups of persons to which they belong) exceeds 7 billion rubles, or total annual revenues of such entities (or groups of persons to which they belong) for the preceding calendar year exceed 10 billion rubles.

The above requirements for a mandatory pre-approval by the FAS will not apply if the transactions are performed by members of the same group, if the information about such a group of persons was disclosed to the antimonopoly authority and there were no changes within one month prior to the date of the transaction within that group of persons. In such cases, the FAS must be notified of the transactions subsequently in accordance with Russian anti-monopoly legislation. Furthermore, the requirement for a mandatory approval of transactions/actions described above will not apply if the transactions/actions are performed by members of the same group where a company and individual or an entity, if such an individual or an entity holds (either due to its participation in this company or based on the

authorities received from other persons) more than 50% of the total amount of votes in the equity (share) capital of this company.

A transaction entered into in violation of the above requirements may be invalidated by a court decision pursuant to a claim brought by the FAS if the FAS proves to the court that the transaction leads or could lead to

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the limitation of competition in the relevant Russian market. The FAS may also issue binding orders to companies that have violated the applicable antimonopoly requirements and bring court claims seeking liquidation, split-up or spin-off of business entities if a violation of antimonopoly laws was committed by such business entities. In addition, a company may be subject to the administrative fine of an amount from 150 to 250 thousand rubles for the failure to file a FAS post-transactional notification and from 300 to 500 thousand rubles for the failure to file an application for FAS pre-approval of the transaction.

Under the Competition Law, a company with a dominant position in the relevant market is prohibited from misusing its dominant position. Specifically, such company is prohibited from:

establishing and maintaining monopolistically high or monopolistically low prices of goods;

withdrawing goods from circulation, if the result of such withdrawal is an increase in the price of goods;

imposing contractual terms upon a counterparty which are unprofitable for the counterparty or not related to with the subject matter of agreement (i.e., terms that are economically or technologically unjustified);

reducing or terminating, without economical or technological justification, production of goods if there is a demand for the goods or orders for their delivery have been placed and it is possible to produce them profitably;

refusing or evading, without economical or technological justification, to enter into a contract with customers in cases when the production or delivery of the relevant goods is possible;

establishing without economical, technological or other justification different prices for the same goods;

establishing unjustifiably high or unjustifiably low price of a financial service by a financial organization;

creating discriminatory conditions;

creating barriers to entry into the market for the relevant goods or forcing other companies to leave the market;

violating pricing procedures established by law; and

manipulating prices in the wholesale and/or retail electricity (capacity) markets.

In 2016, as a result of amendments to the Competition Law, the register of entities with a market share exceeding 35% in the relevant market was abolished. Inclusion of a company in the register implied that it might be subject to additional FAS oversight, but at the same time provided the company with information on the occupied market share. The abolition of the register creates additional antimonopoly risks to the company.

In order to prevent the creation of discriminatory conditions, the Government of the Russian Federation can establish rules for non-discriminatory access to goods that are produced and/or sold by a business entity holding a dominant position and not included into the register of natural monopolies whose share exceeds 70% in the relevant market. Such rules may be established in case a decision of the antimonopoly authority on the fact of abuse of a dominant position by such business entity entered into force.

In the event of a breach of any terms of business conduct required by the FAS, the FAS may initiate proceedings to investigate violations of antimonopoly legislation. If a violation of antimonopoly legislation is identified, the FAS may initiate administrative proceedings which may result in the imposition of a fine calculated on the basis of the annual revenues received by the company in the market where such violation was committed. Such fines may include an administrative fine of an amount from 300 thousand to one million rubles

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or, if such violation has led or may lead to the prevention, limitation or elimination of competition, an administrative fine of up to 15% of the proceeds from sale of all goods, works and services in the market where such violation was committed, but not more than 2% of the aggregate amount of proceeds from sale of all goods, works and services in case of abuse of a dominant position and not more than 4% of the aggregate amount of proceeds from sale of all goods, works and services in case of conclusion of an inadmissible agreement according to the law. Russian legislation also provides for criminal liability of company executives for violations of certain provisions of antimonopoly legislation. Furthermore, for systematic violations, a court may order, pursuant to a suit filed by the FAS, a compulsory split-up or spin-off of the violating company, and no affiliation can be preserved between the new entities established as result of such a mandatory reorganization.

The FAS has determined certain of our companies to have a dominant position in certain markets and these companies are subject to directive issued by the FAS which impose certain restrictions on their commercial activities. See Risk Factors Risks Relating to Our Business and Industry Antimonopoly regulation could lead to sanctions with respect to the subsidiaries we have acquired or established or our prices, sales volumes and business practices.

The Strategic Industries Law

The Strategic Industries Law, dated April 29, 2008, as amended, regulates foreign investments in companies with strategic importance for the national defense and security of the Russian Federation (**Strategic Companies**). The Strategic Industries Law provides an exhaustive list of strategic activities, engagement in which makes a company subject to restrictions. Among others, the list of such activities includes exploration and/or production of natural resources on subsoil plots of federal importance. Subsoil plots of federal importance include plots with deposits of uranium, diamonds, high-purity quartz ore, nickel, cobalt, niobium, lithium, beryllium, tantalum, yttrium-group rare-earth metals and platinoid metals. They also include deposits of oil, gas, vein gold and copper which are above certain size limits specified in the Subsoil Law, as well as subsoil plots of the internal sea, territorial sea and continental shelf; and subsoil plots, the use of which requires the use of land plots included in the category of national defense and security land. The Strategic Subsoil List was first officially published in *Rossiyskaya Gazeta* on March 5, 2009. Services rendered by business entities included into the register of natural monopolies pursuant to the Federal Law On Natural Monopolies, dated August 17, 1995, as amended, with certain exceptions, are also considered to constitute strategic activity. Furthermore, production and sale of metals, alloys with special features or raw materials that are used in production of weapons and military equipment is also deemed to be a strategic activity starting from July 2017. The production and distribution of industrial explosives is also deemed to be activity of strategic importance for national defense and homeland security.

Investments resulting in a foreign investor or a group of entities obtaining control over a Strategic Company, or acquiring fixed assets of a Strategic Company representing 25% or more of its balance sheet value, require prior approval from state authorities. The procedure for issuing such consent will involve a special governmental commission on the control of foreign investments (the **Governmental Commission**), which was established by a government resolution dated July 6, 2008 as the body responsible for granting such consents, and the FAS, which is authorized to process applications for consent from foreign investors and to issue such consents based on the decisions of the Governmental Commission. **Control** for these purposes means an ability to determine, directly or indirectly, decisions taken by a Strategic Company, whether through voting at the general shareholders (or limited liability company interest-holders) meeting of the Strategic Company, participating in the board of directors or management bodies of the Strategic Company, or acting as the external management organization of the Strategic Company or otherwise. Thus, generally, control will be deemed to exist if any foreign investor or a group of entities acquires more than 50% of the shares (or limited liability interests) of a Strategic Company, or if by virtue of a contract or ownership of securities with voting rights it is able to appoint more than 50% of the members of the board of directors or of the management board of a Strategic Company. However, there are special provisions for Strategic Companies involved

in the exploration or extraction of natural resources on plots of federal importance (**Subsoil Strategic Companies**): a foreign

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investor or group of entities is considered to have control over a Subsoil Strategic Company when such foreign investor or group of entities holds directly or indirectly 25% or more of the voting shares of the Subsoil Strategic Company or holds the right to appoint its sole executive officer and/or 25% or more of its management board or has the unconditional right to elect 25% or more of its board of directors.

Furthermore, in case a foreign investor or its group of entities which is a holder of securities of a Strategic Company, Subsoil Strategic Company or other entity which exercises control over these companies becomes a direct or indirect holder of voting shares in amount which is considered to give them direct or indirect control over these companies in accordance with the Strategic Industries Law due to a change in the allocation of votes resulting from the procedures provided by Russian law (e.g. as a result of a buy-back by the relevant company of its shares, conversion of preferred shares into common shares or holders of preferred shares becoming entitled to vote at a general shareholders meeting in cases provided by Russian law), such shareholders will have to apply for state approval of their control within three months of receiving such control. If the Governmental Commission refuses to grant the approval the shareholders shall sell the relevant part of their respective shares or participatory interest, and if they do not comply with this requirement, a Russian court can deprive such foreign investor or its group of entities of the voting rights in such Strategic Company upon a claim of the competent authority. In such cases, the shares of the foreign investor are not counted for the purposes of establishing a quorum and reaching the required voting threshold at the general shareholders meeting of the Strategic Company.

Any transfers of a stake, or certain rights, in a Strategic Company or in a Subsoil Strategic Company to foreign investors that are (i) companies controlled by the Russian Federation, the constituent entity of the Russian Federation or (ii) companies controlled by Russian nationals, provided that such Russian nationals are Russian tax residents and do not have other nationality, will not require prior approval from the state authorities.

If a foreign investor or its group of entities obtains control over a Strategic Company in violation of the Strategic Industries Law, the relevant transaction is void, and in certain cases a Russian court can deprive such foreign investor or group of entities of the voting rights in such Strategic Company upon a claim by the competent authority. In addition, resolutions of the general shareholders meetings or other management bodies of a Strategic Company adopted after a foreign investor or group of entities obtained control over the Strategic Company in violation of the Strategic Industries Law, as well as transactions entered into by the Strategic Company after obtaining such control, may be held invalid by a court upon a claim by the competent authority. See Item 3. Key Information Risk Factors Risks Relating to the Russian Federation Legal risks and uncertainties Expansion of limitations on foreign investment in strategic sectors could affect our ability to attract and/or retain foreign investments.

Employment and Labor Regulations in Russia

Labor matters in Russia are governed primarily by the Labor Code. In addition to this core legislation, relationships between employers and employees are regulated by federal laws, such as the Law On Employment in the Russian Federation, dated April 19, 1991, as amended, and the Law On Compulsory Social Insurance Against Industrial Accidents and Occupational Diseases, dated July 24, 1998, as amended; legal acts of executive authorities; and local government acts related to labor issues.

Employment contracts

As a general rule, employment contracts for an indefinite term are entered into with all employees. Russian labor legislation generally disfavors fixed-term employment contracts. However, an employment contract may be entered into for a fixed term of up to five years in certain cases where labor relations may not be established for an indefinite term due to the nature of the duties or the conditions of the performance of such duties, as well as in other cases

expressly identified by the Labor Code or other federal law. In some cases it is also possible to enter into an employment contract for the employee to perform specified tasks. All terms and conditions of employment contracts are regulated by the Labor Code.

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Under Russian law, employment may be terminated by mutual agreement between the employer and the employee at the end of the term of a fixed-term employment contract or on the grounds set out in the Labor Code as described below. An employee has the right to terminate his or her employment contract with a minimum of two weeks' notice (or one month's notice for a company's chief executive officer), unless the employment contract is terminated before the notice period ends by mutual agreement between employer and employee.

An employer may terminate an employment contract only on the basis of the specific grounds enumerated in the Labor Code, including, inter alia:

liquidation of the enterprise or downsizing of staff;

failure of the employee to comply with the position's requirements due to incompetence, as confirmed by the results of an attestation;

repeated failure of the employee to fulfill his or her work duties without valid reason, provided that the employee has been disciplined previously;

entering the workplace under the influence of alcohol, narcotics or other intoxicating substances;

a single gross breach by an employee of his or her work duties, including truancy;

disclosure of state secrets or other confidential information, which an employee has come to know during fulfillment of his professional duties;

embezzlement, willful damage or destruction of assets, and misappropriation as confirmed by a court decision or a decision by another competent governmental authority;

failure to comply with safety requirements in the workplace if such failure to comply caused injuries, casualties or catastrophe; and

provision by the employee of false documents upon entry into the employment contract.

An employee dismissed from an enterprise due to downsizing or liquidation is entitled to receive compensation and salary payments for a certain period of time, depending on the circumstances.

The Labor Code also provides protections for specified categories of employees. For example, except in cases of liquidation of an enterprise and other events specified in the Labor Code, an employer cannot dismiss minors, pregnant women, mothers with a child under the age of three, single mothers with a child under the age of 14 or other persons caring for a child under the age of 14 without a mother.

Any termination by an employer that is inconsistent with the Labor Code requirements may be invalidated by a court, and the employee may be reinstated. Lawsuits resulting in the reinstatement of illegally dismissed employees and the payment of damages for wrongful dismissal are increasingly frequent, and Russian courts tend to support employees rights in most cases. Where an employee is reinstated by a court, the employer must compensate the employee for unpaid salary for the period between the wrongful termination and reinstatement, as well as for mental distress.

Work time

The Labor Code generally sets the regular working week at 40 hours. Any time worked beyond 40 hours per week, as well as work on public holidays and weekends, must be compensated at a higher rate.

For employees working in hazardous or harmful conditions, the regular working week is decreased by four hours. Some of our production employees qualify for this reduced working week.

Annual paid vacation leave under the law is 28 calendar days. Our employees who work in mines and pits or work in harmful conditions may be entitled to additional paid vacation ranging from 7 to 42 business days.

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The retirement age in the Russian Federation is 60 years for males and 55 years for females. However, employees who work in underground and open pit mines or do other work in potentially harmful conditions have the right to retire at an earlier age. Early retirement ages are established by the applicable legislation.

Salary

In accordance with Russian law, the minimum salary in Russia is 9,489 rubles. Starting from May 1, 2018, the minimum salary will be increased to the minimum subsistence level and will amount to 11,163 rubles.

Strikes

The Labor Code defines a strike as the temporary and voluntary refusal of workers to fulfill their work duties with the intention of settling a collective labor dispute. Russian legislation contains several requirements for legal strikes. Participation in a legal strike may not be considered by an employer as grounds for terminating an employment contract, although employers are generally not required to pay wages to striking employees for the duration of the strike. Participation in an illegal strike may be adequate grounds for termination of employment.

Trade unions

Although Russian labor regulations have decreased the authority of trade unions compared with the past, they retain influence over employees and, as such, may affect the operations of large industrial companies in Russia, such as Mechel. In this regard, our management routinely interacts with trade unions in order to ensure the appropriate treatment of our employees and the stability of our business.

The activities of trade unions are generally governed by the Federal Law On Trade Unions, Their Rights and Guarantees of Their Activity, dated January 12, 1996, as amended (the **Trade Union Law**). Other applicable legal acts include the Labor Code, which provides for more detailed regulations relating to activities of trade unions.

The Trade Union Law defines a trade union as a voluntary union of individuals with common professional and other interests that is incorporated for the purposes of representing and protecting the rights and interests of its members. National trade union associations, which coordinate activities of trade unions throughout Russia, are also permitted.

As part of their activities, trade unions may:

negotiate collective contracts and agreements such as those between the trade unions and employers, federal, regional and local governmental authorities and other entities;

monitor compliance with labor laws, collective contracts and other agreements;

access work sites and offices, and request information relating to labor issues from the management of companies and state and municipal authorities;

represent their members and other employees in individual and collective labor disputes with management;

organize and participate in strikes; and

monitor redundancy of employees and seek action by municipal authorities to delay or suspend mass layoffs. Russian laws require that companies cooperate with trade unions and do not interfere with their activities. Trade unions and their officers enjoy certain guarantees as well, such as:

legal restrictions as to rendering redundant employees elected or appointed to the management of trade unions;

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protection from disciplinary punishment or dismissal on the initiative of the employer without prior consent of the management of the trade union and, in certain circumstances, the consent of the relevant trade union association;

retention of job positions for those employees who stop working due to their election to the management of trade unions;

protection from dismissal for employees who previously served in the management of a trade union for two years after the termination of the office term, except where a company is liquidated or the employer is otherwise entitled to dismiss the employee; and

provision of necessary equipment, premises and vehicles by the employer for use by the trade union free of charge, if provided for by a collective contract or other agreement.

If a trade union discovers any violation of work condition requirements, notification is sent to the employer with a request to cure the violation and to suspend work if there is an immediate threat to the lives or health of employees. The trade union may also apply to state authorities and labor inspectors and prosecutors to ensure that an employer does not violate Russian labor laws. Trade unions may also initiate collective labor disputes, which may lead to strikes.

To initiate a collective labor dispute, trade unions present their demands to the employer. The employer is then obliged to consider the demands and notify the trade union of its decision. If the dispute remains unresolved, a reconciliation commission attempts to end the dispute. If this proves unsuccessful, collective labor disputes are generally referred to mediation or labor arbitration. Although the Trade Union Law provides that those who violate the rights and guarantees provided to trade unions and their officers may be subject to disciplinary, administrative and criminal liability, no specific consequences for such violations are set out in Russian legislation.

Regulation of Russian Electricity Market

Industry background

The functioning of the energy system of the Russian Federation is based on a combination of technological and commercial infrastructure which operates under state control, on the one hand, and organizations engaged in the generation and sale of electricity which interact with each other in a competitive environment, on the other hand.

Pursuant to the Electric Power Industry Law, the electric power industry entities are organizations engaged in the production of electricity, heat energy and capacity, purchase and sale of electricity and capacity, power supply of consumers, rendering services in electricity transmission, operational-dispatching management in the electric power industry, sales of electric energy (capacity), organizing of purchase and sale of electric energy and capacity.

Generating companies carry out generation and sale of electricity in the wholesale or retail markets to sales organizations or end consumers. Sales organizations purchase electricity in the wholesale and retail markets and sell it to end consumers.

Electricity consumers are natural and legal persons who purchase electricity for their own household and/or production needs. Large consumers may purchase electricity directly on the wholesale market provided that they

fulfill the requirements for participants of the wholesale electricity and capacity market. Other categories of consumers purchase electricity from power sales companies, including guaranteeing suppliers, as well as may purchase electricity from electricity producers who are not participants of the wholesale electricity and capacity market.

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System Operator (SO UPS JSC), which is wholly-owned by the state, performs operational-dispatching management in the Unified Energy System of Russia. The main function of the System Operator is to control of the compliance of technological parameters of the energy system operation. The System Operator participates in the maintenance of the wholesale electricity and capacity market.

Grid operators transmit electricity through electric grids and carry out technological connection of power receiving devices of electricity consumers, power facilities of generating companies and power grid facilities of other owners to electric grids. Activities of grid operators are a natural monopoly and are regulated by the state.

Organizations of commercial infrastructure include Trading System Administrator JSC, Financial Settling Center JSC and Association Nonprofit Partnership Market Council. Association Nonprofit Partnership Market Council was established in order to balance the interests of the electricity market participants and to ensure the unity of the commercial infrastructure operation. Activities of infrastructure organizations, including pricing and conditions of interaction with contractors, are subject to state regulation and control.

In accordance with amendments to the Electric Power Industry Law and other legislative acts which entered into force on December 29, 2017, power sales activity is subject to compulsory licensing since December 30, 2018. Power sales activity is the sale of electricity produced and/or purchased in the retail electricity market both within and outside the unified national electric grid of Russia. A prerequisite for granting a license is compliance with licensing requirements.

Sales of electricity

The Russian electricity market consists of wholesale and retail electricity and capacity markets. The wholesale electricity and capacity market encompasses European territory of the Russian Federation, the Urals and Siberia and is divided into two pricing zones. The first pricing zone includes the European territory of the Russian Federation and the Urals and the second pricing zone includes Siberia. In addition, there are so-called non-pricing zones, namely the regions of the Far East, the Arkhangelsk region, the Kaliningrad region and the Komi Republic. Competition in these areas for various technical reasons is not possible yet. In non-pricing zones sale of electricity in the retail electricity and capacity market is made at regulated prices. The wholesale market provides a framework for large-scale, often interregional, energy trades. The retail electricity market operates within all Russian regional territories and provides a framework for mid-scale and end-consumer energy trades. This market is regulated by the respective Regional Energy Committees.

Wholesale electricity market

The wholesale electricity and capacity market is a sphere of distribution of electric energy and capacity within the Unified Energy System of Russia. The wholesale market participants include large producers and consumers of electricity and capacity, as well as other entities that earned the status of an entity of the wholesale market and act on the basis of applicable rules.

Trading on the wholesale electricity and capacity market is conducted in accordance with the agreement on accession to the trading system and wholesale market regulations which are developed and adopted by Association Nonprofit Partnership Market Council.

Electricity trading on the wholesale electricity and capacity market is carried out by means of the classical model of supply and demand balance or through bilateral contracts of purchase and sale of electric energy.

Currently electricity is traded on the basis of the following trading mechanisms:

Regulated bilateral contracts

Regulated contracts are effectively take-or-pay obligations at regulated prices defined by the FAS for electricity and capacity volumes. The volumes of electricity to be traded by the generators under regulated

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contracts are set up by the FAS annually based on percentages of the volumes of electricity generated in the previous year. The volumes of electricity traded under regulated contracts have gradually declined for the wholesale market when it became fully liberalized in 2011. Starting from January 1, 2011, electricity is traded at non-regulated prices, except for electricity intended for supply to households.

A generator may provide the volumes of electricity it must sell under regulated contracts either through own generation or through the purchase of electricity on the spot market at market prices. Similarly, its consumers receive electricity at regulated prices in the volumes agreed under the regulated contracts, regardless of their actual needs, and can freely trade the imbalance on the spot market at market prices (either by purchasing additional volumes, if needed, or selling the excess electricity volumes).

Non-regulated bilateral contracts

Electricity supply volumes which are not agreed upon under regulated contracts, as well as all new generation capacity commissioned after January 1, 2007, can be traded by participants of the wholesale market under non-regulated contracts, on the one-day-ahead spot market or on the balancing market. All terms of electricity supply under non-regulated contracts are subject to free negotiation between sellers and purchasers.

Retail electricity market

The retail market participants include consumers, power supply companies, guaranteeing suppliers, power grid companies and electricity producers which do not supply electricity to the wholesale market.

The retail electricity market operates on the following main principles: (1) end consumers are free to choose between sales companies; (2) end consumers purchase at free prices set on the market, except for contracts with guaranteeing suppliers; and (3) guaranteeing suppliers cannot refuse to enter into a contract with an end consumer.

Guaranteeing suppliers sell electricity under prices that take account of: (1) the prices on the wholesale electricity market; (2) the sales premium of the particular guaranteeing supplier set by respective regional authorities; and (3) the prices for electricity transmission and distribution through electricity networks.

Since December 30, 2018, power sales activity in the retail electricity market is subject to compulsory licensing.

Heat market

Heat markets are regional retail markets and heat prices are regulated and set within the general guidelines provided by the FAS and by regional authorities. Minimum and maximum prices for heat energy traded on the retail markets are set by the FAS separately for each administrative region of Russia for a period of at least one year. Regional authorities establish the prices for relevant territories within the range set by the FAS and subject to the types and prices of fuel used to produce the heat and the volumes of heat purchased on the relevant territory.

Our Southern Kuzbass Power Plant delivers heat energy (in the form of hot water) at regulated prices to residential and commercial customers in the cities of Kaltan, Osinniki and Mezhdurechensk. Mechel Energo delivers heat energy (in the form of hot water and steam) at regulated prices to residential and commercial customers in the cities of Vidnoye, Chelyabinsk, Chebarkul, Beloretsk and Izhevsk.

EU REACH

On June 1, 2007, the European Union enacted regulations on registration, evaluation, authorization and restrictions of use of chemicals, known as REACH. The purpose of REACH is to ensure a high level of protection of human health and the environment, including the promotion of alternative methods of assessment of hazards of chemical substances.

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REACH requires foreign manufacturers importing their chemical substances into the European Union, as well as EU manufacturers producing such substances in quantities of one tonne or more per year, to register these substances with the ECHA and provide the information about the registered substances usage and utilization to the competent authorities of the EU Member States and downstream users upon request. Prior to December 1, 2008, we pre-registered with the ECHA substantially all of the substances that we intended to export to or produce in the European Union. As a next step, we successfully registered with the ECHA the substances that we export to or produce in the European Union in an amount over 1,000 tonnes per year, and which are subject to REACH registration, namely: ferroalloys, coke-chemicals and pig iron exported to the European Union. This registration was completed prior to December 1, 2010 in compliance with the REACH implementation schedule.

Item 4A. *Unresolved Staff Comments*

None.

Item 5. *Operating and Financial Review and Prospects*

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes and other information in this document. This Item 5 contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those discussed in forward-looking statements as a result of various factors, including the risks described in Item 3. Key Information Risk Factors and under the caption Cautionary Note Regarding Forward-Looking Statements.

In this Item 5, the term *domestic* describes sales by a subsidiary within the country where its operations are located. The term *export* describes cross-border sales by a subsidiary regardless of its location. See note 26 to the consolidated financial statements.

History of Incorporation

Mechel PAO was incorporated on March 19, 2003, as a joint-stock company holding shares and interests in the charter capitals of various mining and steel companies owned by Igor Zyuzin, Vladimir Iorich and companies controlled by them. These individuals acted in concert from 1995 until December 2006 pursuant to an agreement which required them to vote in the same way. During the period from March through December 2006, Mr. Iorich disposed of his entire interest in Mechel PAO to Mr. Zyuzin, and the agreement terminated on December 21, 2006.

Business Structure

Segments

We have organized our businesses into three segments:

the mining segment, comprising production and sale of coal (metallurgical and steam), coke and chemical products and iron ore, which supplies raw materials to our steel and power segments and also sells substantial amounts of raw materials to third parties, and includes logistical assets, such as our seaports on the Sea of Japan and on the Sea of Azov and our railway transportation assets;

the steel segment, comprising production and sale of semi-finished steel products, long products of a wide range of steel grades, carbon and stainless flat products, high value-added metal products, including wire products, stampings and forgings and others, as well as ferrosilicon, and our river port on the Kama River, a tributary of the Volga River; and

the power segment, comprising generation and sale of electricity and heat energy, which supplies electricity and heat energy to our mining and steel segments and also sells a portion of electricity and heat energy to third parties.

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The table below sets forth by segments our key mining, steel and power subsidiaries, presented in chronological order by date of acquisition.

Name	Location of Assets	Product/Business	Date Control Acquired	Voting Interest⁽¹⁾
<i>Mining Segment</i>				
Southern Kuzbass Coal Company	Russia	Coking coal, steam coal, anthracite and PCI	January 1999	99.1%
Korshunov Mining Plant	Russia	Iron ore concentrate	October 2003	90.0%
Port Posiet	Russia	Seaport: coal warehousing and transshipment	February 2004	97.8%
Mechel Coke	Russia	Coke and chemical products	June 2006	100.0%
Moscow Coke and Gas Plant	Russia	Coke and chemical products	October 2006	99.5%
Yakutugol	Russia	Coking coal, steam coal	October 2007	100.0%
Port Temryuk	Russia	Seaport: coal and metal transshipment	March 2008	100.0%
Elgaugol	Russia	Coking coal, steam coal	August 2013	51.0%
Elga-road	Russia	Railroad transportation	January 2016	51.0%
<i>Steel Segment</i>				
Chelyabinsk Metallurgical Plant	Russia	Semi-finished steel products, carbon and stainless long and flat steel products	December 2001	94.2%
Vyartsilya Metal Products Plant	Russia	Wire products	May 2002	93.3%
Beloretsk Metallurgical Plant	Russia	Long steel products, wire products	June 2002	94.8%
Urals Stampings Plant	Russia	Stampings and forgings	April 2003	93.8%
Mechel Nemunas	Lithuania	Wire products	October 2003	100.0%
Izhstal	Russia	Carbon and special steel long products and wire products	May 2004	90.0%
Port Kambarka	Russia	River port	April 2005	90.4%
Bratsk Ferroalloy Plant				