

**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, 2019

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 333-12032



MOBILE TELESYSTEMS PUBLIC JOINT STOCK COMPANY

(Exact name of Registrant as specified in its charter)

RUSSIAN FEDERATION

(Jurisdiction of incorporation or organization)

4 Marksistskaya Street, Moscow 109147 Russian Federation

(Address of principal executive offices)

Polina V. Ugryumova

Director, Investor Relations

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(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	Trading Symbol(s)	Name of Each Exchange on Which Registered
COMMON AMERICAN DEPOSITARY SHARES, EACH COMMON ADS REPRESENTING TWO COMMON SHARES COMMON SHARES, PAR VALUE 0.10 RUSSIAN RUBLES PER SHARE	MBT	NEW YORK STOCK EXCHANGE NEW YORK STOCK EXCHANGE ⁽¹⁾

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.

1,129,245,695 ordinary shares, par value 0.10 Russian rubles each and 391,398,362 American Depositary Shares as of December 31, 2019

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, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Emerging growth company

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:

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 otherwise indicated or unless the context requires otherwise, references in this document to (i) “MTS,” “the Group,” “the Company,” “we,” “us,” or “our” refer to Mobile TeleSystems Public Joint Stock Company and its subsidiaries; (ii) “Vodafone Ukraine” and “VF Ukraine” are to Private Joint Stock Company “VF Ukraine”(formerly PJSC MTS Ukraine) which is our former subsidiary in Ukraine disposed of in December 2019; (iii) “Uzdunrobita” is to our former subsidiary in Uzbekistan, which was deconsolidated in 2013; (iv) “MTS-Turkmenistan” our Turkmenistan subsidiary and “BCIT” are to Barash Communication Technologies, Inc., our former Turkmenistan subsidiary; (v) “Comstar” or “Comstar-UTS” are to COMSTAR—United TeleSystems, our former fixed line subsidiary, which was merged into MTS PJSC in 2011; (vi) “MGTS” is to Public Joint Stock Company Moscow City Telephone Network, our Moscow public switched telephone network (“PSTN”) fixed line subsidiary; and (vii) “MTS-Armenia,” “K-Telecom” or “VivaCell-MTS” are to our Armenian subsidiary; and (viii) “MTS Bank” is to MTS Bank PJSC, our subsidiary which provides banking services; (ix) “UMS” is to Universal Mobile Systems LLC, our former subsidiary in Uzbekistan which was deconsolidated in 2016; (x) NVision is our subsidiary which provides integration services and (xi) “Sistema” is to Sistema Public Joint Stock Financial Corporation, our majority shareholder. We refer to Mobile TeleSystems LLC, our 49% owned equity investee in Belarus, as “MTS Belarus.” As MTS Belarus is an equity investee, our revenues and subscriber data do not include MTS Belarus.

In this document, references to “U.S. dollars,” “dollars,” “\$” or “USD” are to the lawful currency of the United States, “Russian rubles,” “rubles” or “RUB” are to the lawful currency of the Russian Federation, “hryvnias” are to the lawful currency of Ukraine, “soms” are to the lawful currency of Uzbekistan, “manats” are to the lawful currency of Turkmenistan, “dram” are to the lawful currency of Armenia and “€,” “euro” or “EUR” are to the lawful currency of the member states of the European Union that adopted a single currency in accordance with the Treaty of Rome establishing the European Economic Community, as amended by the treaty on the European Union, signed at Maastricht on February 7, 1992. References in this document to “shares” or “ordinary shares” refers to our ordinary shares, “ADSs” refers to our American depositary shares, each of which represents two ordinary shares, and “ADRs” refers to the American depositary receipts that evidence our ADSs. Prior to May 3, 2010, each ADS represented five ordinary shares of our common stock. “CIS” refers to the Commonwealth of Independent States. “CBR” refers to the Central Bank of Russia.

The following tables show, for the periods indicated, certain information regarding the exchange rate between the ruble and the U.S. dollar, based on data published by the CBR. These rates may differ from the actual rates used in preparation of our financial statements and other financial information provided herein.

<u>Years ended December 31,</u>	<u>Rubles per U.S. dollar</u>			
	<u>High</u>	<u>Low</u>	<u>Average⁽¹⁾</u>	<u>Period End</u>
2015	72.88	49.18	60.96	72.88
2016	83.59	60.27	67.03	60.66
2017	60.75	55.85	58.35	57.60
2018	69.97	55.67	62.71	69.47
2019	69.47	61.72	64.74	61.91

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

	<u>Rubles per U.S. dollar</u>	
	<u>High</u>	<u>Low</u>
July 2019	63.87	62.81
August 2019	66.78	63.71
September 2019	66.91	63.71
October 2019	65.44	63.63
November 2019	64.21	63.25
December 2019	64.41	61.72
January 2020	63.04	60.95
February 2020	66.99	62.80
March 2020	80.88	66.08

Source: CBR.

The exchange rate between the ruble and the U.S. dollar quoted by the CBR for April 23, 2020 was 77.04 rubles per U.S. dollar.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Matters discussed in this document may constitute forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933 (the “U.S. Securities Act”), and Section 21E of the U.S. Securities Exchange Act of 1934 (the “U.S. Exchange Act”). The Private Securities Litigation Reform Act of 1995 provides safe harbor protections for forward-looking statements in order to encourage companies to provide prospective information about their businesses. Forward-looking statements include statements concerning plans, objectives, goals, strategies, risks and their assessment, future events or performance, and underlying assumptions and other statements, which are other than statements of historical facts.

MTS desires to take advantage of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and is including this cautionary statement in connection with this safe harbor legislation and other relevant law. This document and any other written or oral statements made by us or on our behalf may include forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. The words “believe,” “expect,” “anticipate,” “intend,” “estimate,” “forecast,” “project,” “predict,” “plan,” “may,” “should,” “could” and similar expressions identify forward-looking statements. Forward-looking statements appear in a number of places including, without limitation, “Item 3. Key Information—D. Risk Factors,” “Item 4. Information on our Company—B. Business Overview,” “Item 5. Operating and Financial Review and Prospects,” and “Item 11. Quantitative and Qualitative Disclosures about Market Risk” and include statements regarding:

- our strategies, future plans, economic outlook, industry trends and potential for future growth;
- our liquidity, capital resources and capital expenditures;
- our payment of dividends;
- our capital structure, including our indebtedness amounts;
- our ability to generate sufficient cash flow to meet our debt service obligations;
- our ability to achieve the anticipated levels of profitability;
- our ability to timely develop and introduce new products and services;
- our ability to obtain and maintain interconnect agreements;
- our ability to secure the necessary spectrum and network infrastructure equipment;
- our ability to meet license requirements and to obtain and maintain licenses and regulatory approvals;
- our ability to maintain adequate customer care and to manage our churn rate; and
- our ability to manage our rapid growth and train additional personnel.

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, because these assumptions are inherently subject to significant uncertainties and contingencies which are difficult or impossible to predict and are beyond our control, we cannot assure you that we will achieve or accomplish these expectations, beliefs or projections. In addition to these important factors and matters discussed elsewhere herein, important factors that, in our view, could cause actual results to differ materially from those discussed in the forward-looking statements include:

- growth in demand for our services;
- changes in consumer preferences or demand for our products;
- availability of external financing on commercially acceptable terms;
- the developments of our markets;
- the highly competitive nature of our industry and changes to our business resulting from increased competition;
- the impact of regulatory initiatives;
- the rapid technological changes in our industry;
- cost and synergy of our recent acquisitions;
- the acceptance of new products and services by customers;
- the condition of the economies of Russia, and certain other countries of the CIS;
- risks relating to legislation, regulation and taxation in Russia and certain other CIS countries, including laws, regulations, decrees and decisions governing each of the telecommunications industries in the countries where we operate, currency and exchange controls relating to entities in Russia and other countries where we operate and taxation legislation relating to entities in Russia and other countries where we operate, and their official interpretation by governmental and other regulatory bodies and by the courts of Russia and the CIS;
- political stability in Russia and certain other CIS countries; and
- the impact of general business and global economic conditions and other important factors described herein and from time to time in the reports filed by us with the U.S. Securities and Exchange Commission (the "SEC").

All future written and verbal forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. New risks and uncertainties arise from time to time, and it is impossible for us to predict these events or how they may affect us. Readers are cautioned not to place undue reliance on these forward-looking statements. Except to the extent required by law, neither we, nor any of our respective agents, employees or advisors intends or has any duty or obligation to supplement, amend, update or revise any of the forward-looking statements contained or incorporated by reference in this document.

PART I

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

Not applicable.

Item 2. *Offer Statistics and Expected Timetable*

Not applicable.

Item 3. *Key Information*

A. **Selected Financial Data**

On January 1, 2018 we adopted three new IFRS standards—IFRS 9, “Financial Instruments,” IFRS 15, “Revenue from Contracts with Customers,” and IFRS 16 “Leases.” Prior period comparatives were not restated.

Our results of operations for the financial year ended December 31, 2018 were affected by acquisition of controlling stake in MTS Bank. In 2018, we increased effective ownership share in MTS Bank from 26.6% to 55.4% and obtained control over the entity. In 2019, we subsequently increased our effective ownership stake in MTS Bank to 99.9%. The acquisition was accounted for as a transaction with entities under common control directly in equity.

In December 2019, we sold our business in Ukraine, VF Ukraine, the results of the sold business are reported as discontinued operations for all the reported periods presented in the table below. Ukraine was excluded from operating segments presentation as a result of disposal. The results of operations in Ukraine were reported as discontinued operations in accompanying consolidated statement of profit or loss for the years ended December 31, 2019. The consolidated statements of profit or loss for the years ended December 31, 2018 and 2017 were retrospectively restated to present operations in Ukraine as discontinued operations. See Note 10 to the consolidated financial statements. The consolidated data for the years ended December 31, 2016 and 2015 represented below is also presented without operations in Ukraine.

The selected financial data presented below as of December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017 was derived from the audited consolidated financial statements of the Company, included in this document, “Item 3. Key Information—D. Risk Factors” and “Item 5. Operating and Financial Review and Prospects.” The selected financial data presented below as of December 31, 2017, 2016, and 2015 and for the years ended December 31, 2016 and 2015 was derived from the audited consolidated financial statements of the Company, which are not included herein. Certain industry and operating data are also provided below.

	Years Ended December 31,				
	2019	2018	2017	2016	2015
	Amounts in millions of Russian rubles, except share and per share amounts, industry and operating data and ratios				
Consolidated statements of profit or loss data:					
Services revenue	406,839	382,698	365,830	359,520	360,652
Sales of goods	69,267	68,768	52,088	49,146	40,397
Total operating revenues	476,106	451,466	417,918	408,666	401,049
Operating expenses:					
Cost of services	114,995	104,929	115,656	118,821	117,294
Cost of goods	63,889	63,253	45,475	45,380	36,323

	Years Ended December 31,				
	2019	2018	2017	2016	2015
	Amounts in millions of Russian rubles, except share and per share amounts, industry and operating data and ratios				
Selling, general and administrative expenses	90,796	83,427	90,349	88,303	82,269
Depreciation and amortization	96,279	95,386	73,940	75,367	72,698
Operating share of the profit of associates	(4,583)	(3,799)	(3,210)	(3,115)	(3,457)
Impairment of non-current assets	(148)	149	3,775	—	—
Other expenses/ (income) ⁽¹⁾	690	(900)	1,692	(189)	2,370
Operating profit	114,188	109,021	90,241	84,099	93,552
Finance income	(4,356)	(5,587)	(5,255)	(4,747)	(7,528)
Profit attributable to the Group	47,368	36,988	26,011	27,083	26,413
Currency exchange loss/(gain)	(2,106)	4,043	(818)	(3,393)	8,642
Non-operating share of the loss of associates	(3,496)	909	436	1,288	3,781
Change in fair value of financial instruments	7,455	(5,385)	(110)	(167)	(1,014)
Other expenses/(income), net	2,450	934	992	4,335	3,460
Profit before tax	66,873	77,119	68,987	59,698	59,798
Income tax expense	15,750	15,395	17,780	14,388	12,495
Profit for the period from continuing operations	51,123	61,724	51,207	45,310	47,303
(Income)/Loss from discontinued operations, net of tax	(3,976)	53,892	(5,383)	(3,140)	(101)
Profit for the period	55,099	7,832	56,590	48,450	47,404
Attributable to:					
Owners of the company	54,241	6,848	56,042	48,474	49,489
Non-controlling interests	858	984	548	(24)	(2,085)
Dividends declared ⁽²⁾	83,751	51,958	51,958	51,958	52,011
Earnings per share, basic, RUB	30.45	3.66	28.69	24.37	24.88
Earnings per share, diluted, RUB	30.41	3.65	28.66	24.35	24.87
Earnings per share from continuing operations, basic, RUB	28.22	32.42	25.93	24.81	24.83
Earnings per share from continuing operations, diluted, RUB	28.18	32.38	25.91	24.79	24.82
Earnings per share from discontinued operations, basic, RUB	2.23	(28.76)	2.76	(0.44)	0.05
Earnings per share from discontinued operations, diluted, RUB	2.23	(28.73)	2.75	(0.44)	0.05
Annual Dividends declared per share, RUB	41.91	26.00	26.00	25.99	25.17
Semi—annual Dividends declared per share, RUB	8.68	2.6	10.4	11.99	5.61
Number of common shares outstanding	1,772,834,153	1,830,742,676	1,912,042,419	1,986,899,529	1,988,892,399
Weighted average number of common shares outstanding—basic	1,780,935,238	1,873,562,676	1,953,778,999	1,989,281,930	1,988,728,000
Weighted average number of common shares outstanding—diluted	1,783,617,103	1,875,720,966	1,955,558,196	1,990,693,983	1,990,195,552
Consolidated statement of cash flows data:					
Cash provided by operating activities	106,652	154,390	144,640	130,565	144,088

	Years Ended December 31,				
	2019	2018	2017	2016	2015
	Amounts in millions of Russian rubles, except share and per share amounts, industry and operating data and ratios				
Cash used in investing activities	(29,554)	(78,389)	(81,510)	(57,302)	(145,356)
(of which capital expenditures) ⁽³⁾	(91,736)	(99,568)	(76,431)	(86,149)	(106,537)
Cash used in financing activities	(120,448)	(25,924)	(50,445)	(83,038)	(27,595)
Consolidated statement of financial position (end of period):					
Cash, cash equivalents and short-term investments	63,688	131,938	81,343	27,127	83,304
Property, plant and equipment and investment property, net	268,465	278,620	263,470	272,841	302,662
Right-of-use assets	138,817	149,007	—	—	—
Total assets	823,910	915,993	551,070	544,470	653,378
Total debt (long-term and short-term) ⁽⁴⁾ . .	343,319	368,135	291,713	273,274	334,073
Total shareholders' equity	36,394	77,565	124,205	143,948	168,371
Common stock less treasury stock	(59,548)	(44,608)	(22,444)	(548)	(24,261)
Financial ratios (end of period):					
Total debt/total capitalization ⁽⁵⁾	90.4%	82.5%	70.1%	65.4%	66.4%
Mobile industry and operating data:⁽⁶⁾					
Mobile penetration in Russia (end of period)	178%	174%	174%	179%	176%
Mobile subscribers in Russia (end of period, thousands) ⁽⁷⁾	79,072	78,011	78,291	80,032	77,277
Overall market share in Russia (end of period)	30%	31%	31%	31%	31%

(1) "Operating expenses/(income)" consist mainly of allowance for doubtful accounts, gain/losses on disposal of property, plant and equipment and intangible assets as well as any gain/losses resulting from stock-taking.

(2) Dividends declared in each of the years ended December 31, 2019, 2018, 2017, 2016, 2015 consisted of dividends in respect of the prior fiscal year (*i.e.*, in respect of each of the years ended December 31, 2018, 2017, 2016, 2015, respectively) and semiannual dividends in respect of the current fiscal year (RUB 17,345 million, RUB 5,196 million, RUB 20,783 million, RUB 23,961 million and RUB 11,592 million, respectively). Amounts include dividends on treasury shares RUB 9,449 million, RUB 3,037 million, RUB 1,337, RUB 220 million and RUB 435 million, in respect of the years ended December 31, 2019, 2018, 2017, 2016, 2015 and 2014, respectively. At a meeting held on April 9, 2020, the Board recommended that an annual general meeting of shareholders approve annual dividends of RUB 20.57 per ordinary MTS share (RUB 41.14 per ADS), or a total of approximately RUB 41.1 billion, based on the full-year 2019 financial results.

(3) Capital expenditures are the amounts of property, plant and equipment and intangible assets putted into use during respective year.

(4) Includes notes, payable bank loans and other debt.

(5) Calculated as book value of total debt divided by the sum of the book values of total shareholders' equity and total debt at the end of the relevant period. See footnote 4 above for the definition of "total debt."

(6) Source: AC&M-Consulting and GSMA Intelligence. Operating data is presented for mobile operations only. None of this data is derived from our audited consolidated financial statements.

(7) We define a subscriber as an organization or individual, whose SIM-card shows traffic-generating activity or accrues a balance for services rendered or is replenished or topped off over the course of any three-month period, inclusive within the reporting period, and was not blocked at the end of the period.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

An investment in our securities involves a certain degree of risk. You should carefully consider the following information about these risks, together with other information contained in this document, before you decide to buy our securities. If any of the following risks actually occur, our business, prospects, financial condition or results of operations could be materially adversely affected. In that case, the value of our securities could also decline and you could lose all or part of your investment. In addition, please read “Cautionary Statement Regarding Forward-Looking Statements” where we describe additional uncertainties associated with our business and the forward looking statements included in this document.

Risks Relating to Business Operations in Emerging Markets

Emerging markets such as the Russian Federation and other CIS countries are subject to greater risks than more developed markets, including significant legal, economic, social, regulatory, tax and political risks.

Investors in emerging markets such as the Russian Federation, Armenia, Belarus and other CIS countries should be aware that these markets are subject to greater risk than more developed markets, including in some cases, significant legal, economic, social, regulatory, tax and political risks. Investors should also note that emerging economies such as the economies of the Russian Federation and other CIS countries are subject to rapid change and that the information set out herein may become outdated relatively quickly.

When conducting business in different CIS countries, we may face risks similar to those (and sometime even more substantial) we have in Russia.

There is a number of risks associated with investing in emerging markets, including the following:

- instability of emerging markets (for more information, see “—Risks Relating to Economic Risks in Our Countries of Operation” and “—Legal Risks and Uncertainties”);
- high volatility of national currencies (for more information, see “—Risks Relating to our Financial Condition”);
- possible geopolitical disputes (for more information, see “—Political and Social Risks”); and
- possible liquidity constraints (for more information, see “—Risks Relating to Economic Risks in Our Countries of Operation” and “—Risks Relating to our Financial Condition”).

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 suitable for sophisticated investors who fully appreciate the significance of the risks involved and investors are urged to consult with their own legal and financial advisors before making an investment in our securities.

Risks Relating to Our Business

The telecommunications services market is characterized by rapid technological change, which could render our services obsolete or non-competitive and result in the loss of our market share and a decrease in our revenues.

The telecommunications industry is subject to rapid and significant changes in technology and is characterized by the continuous introduction of new products and services. The mobile telecommunications industry in Russia is also experiencing significant technological change, as evidenced by the introduction in recent years of new standards for radio telecommunications, such as Wi-Fi, Worldwide Inter-operability for Microwave Access (“Wi-Max”), Enhanced Data Rates for Global Evolution (“EDGE”), Universal Mobile Telecommunications System (“UMTS”), and Long Term Evolution (“LTE”), as well as ongoing improvements in the capacity and quality of communications, shorter development cycles for new products and enhancements and changes in customer requirements and preferences. Such continuing technological advances make it difficult to predict the extent of the future competition we may face and it is possible that existing, proposed or as yet undeveloped technologies will become dominant in the future and render the technologies we use less profitable or even obsolete. New products and services that are more commercially effective than our products and services may also be developed. Furthermore, we may not be successful in responding in a timely and cost-effective way to keep up with these developments. Changing our products or services in response to market demand may require the adoption of new technologies that could render many of the technologies that we are currently implementing less competitive or obsolete. To respond successfully to technological advances and emerging industry standards, we may require substantial capital expenditure and access to related or enabling technologies in order to integrate the new technology with our existing technology.

We face increasing competition in the markets where we operate, which may result in reduced operating margins and loss of market share, as well as different pricing, service or marketing policies.

The wireless telecommunications services markets in which we operate are highly competitive, particularly in Russia. Competition is generally based on price, product functionality, range of service offerings and customer service.

Generally, increased levels of competition, including from the potential entry of new mobile operators, government-backed operators, mobile virtual network operators, operators of satellite TV and alternative fixed line operators in the markets where we operate, as well as the strengthening of existing operators, increased use of Internet protocol telephony and other services, provided via the internet, may adversely affect our ability to keep the level of revenue which we receive from our operations on the telecom market. This in turn could result in reduced operating margins and a loss of market share, as well as necessitating different pricing, service or marketing policies, which may have a material adverse effect on our business, financial condition and results of our operations.

Competition in the Russian market

Our principal wireless competitors in Russia are Public Joint Stock Company “Vimpel-Communications” (“VimpelCom”), Public Joint Stock Company MegaFon (“MegaFon”), as well as the federal cellular operator established in 2014 by the combination of Tele2 Russia and the mobile assets of Public Joint Stock Company Long-Distance and International Telecommunications “Rostelecom” (“Rostelecom”). We also face competition from several regional operators.

In addition, we face competition in the fixed line telecommunications business, in particular from Rostelecom. Mass media reported that Rostelecom was determined by the Governmental Decree to be the only provider of Internet services for state and commercial medical institutions. It was also reported that Rostelecom may be the only provider of telecommunications services except mobile communications services for federal state institutions. Implementation of these Decrees requirements could have a material adverse effect on our business and results of operations.

In November 2019, the Board of Directors of Rostelecom approved a transaction to consolidate 100% of LLC “T2 RTK Holding,” which may result in increasing competition.

See also “—If we cannot interconnect cost-effectively with other telecommunications operators, we may be unable to provide services at competitive prices, which may diminish our market share and result in a loss of revenues and margins” below.

Competition in the foreign markets of our operation

In Belarus, our associate, MTS Belarus, faces increasing competition and aggressive pricing from Best CJSC, a subsidiary of System Capital Management and Turkcell Iletisim Hizmetleri A.S. (“Turkcell”), which operates in Belarus under the “life:”) brand. Additionally, in 2011, the government of Belarus announced its intention to hold a public tender to privatize a 51% stake in MTS Belarus with an opening price of approximately USD 1 billion. The public tender was scheduled to be held on December 23, 2011 but was cancelled due to a lack of bidders. The latest attempt to find an investor for the 51% stake in MTS Belarus took place in February 2014. However, it was unsuccessful for the same reason. A date for the next tender has not yet been specified. The terms of the share disposal have not yet been determined, although it may be conducted either through a public tender or by entering into a direct contract with a prospective purchaser. If we are unable to acquire this ownership interest at a commercially reasonable price, or if it is acquired by one of our competitors, it may impact our competitive position and results of operations in Belarus.

We also face competition in Armenia. On July 22, 2015, Orange announced its decision to leave the Armenian market and 100% of Orange Armenia’s shares were sold to an Armenian internet service provider, Ucom. The transaction was approved by the Public Services Regulatory Commission of the Republic of Armenia on August 20, 2015.

We are subject to anti-corruption laws in the jurisdictions in which we operate, including anti-corruption laws of Russia and the US Foreign Corrupt Practices Act (the “FCPA”), and we may be subject to the UK Bribery Act 2010 (the “UK Bribery Act”). Our failure to comply therewith could result in penalties which could harm our reputation and have a material adverse effect on our business, financial condition and results of operations.

We are subject to the FCPA, which generally prohibits companies and their intermediaries from making improper payments to foreign officials for the purpose of obtaining or keeping business and/or other benefits, along with various other anti-corruption laws. We may also be subject to the UK Bribery Act. The UK Bribery Act is broader in scope than the FCPA in that it directly addresses commercial bribery in addition to bribery of public officials and it does not recognize certain exceptions, notably facilitation payments that are permitted by the FCPA.

We operate primarily in Russia and other countries of the former Soviet Union, many of which pose elevated risks of corruption violations. We and certain of our subsidiaries are in frequent contact with persons who may be considered “foreign public officials” under the FCPA and UK Bribery Act, and therefore, are subject to an increased risk of potential FCPA and UK Bribery Act violations. If we or any third party acting on our behalf or in our interests are not in compliance with the FCPA, the UK Bribery Act and other laws governing the conduct of business with government entities (including local laws), we may be subject to criminal and civil penalties and other remedial measures, which could have an adverse impact on our business, results of operations, financial condition and liquidity.

As disclosed in our public filings, in March 2014, we received requests for the provision of information from the United States Securities and Exchange Commission and the United States Department of Justice relating to an investigation of the Group's former subsidiary in Uzbekistan. See also Note 33 to our audited consolidated financial statements. In February 2019, the Group reached a resolution with the SEC and the United States Department of Justice ("DOJ") relating to the previously disclosed investigation of our former subsidiary in Uzbekistan.

We consented to the entry of an administrative cease-and-desist order (the "Order") by the SEC.

The United States District Court for the Southern District of New York approved a deferred prosecution agreement ("DPA") entered by the Group and a plea agreement entered into by our subsidiary in Uzbekistan. Under the agreements with the DOJ, we agreed to pay a total criminal penalty of USD 850 million (RUB 59.1 billion as of December 31, 2018) to the United States. We provided a provision of USD 850 million (RUB 55.8 billion as of the date of accrual), which was recognized as a part of discontinued operations in the consolidated statement of profit or loss for the year ended December 31, 2018.

See also "—We have incurred and are continuing to incur costs and related management oversight obligations in connection with our obligations under the DPA and the SEC Order," "—We could be subject to criminal prosecution or civil sanction if we breach the DPA and the SEC Order, and we may face other potentially negative consequences relating to the investigations by, and agreements with, the DOJ and SEC and other authorities, including additional investigations and litigation" and "Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—7. Litigation—Uzbekistan."

We have incurred and are continuing to incur costs and related management oversight obligations in connection with our obligations under the DPA and the SEC Order.

We are subject to the DPA with the DOJ and the SEC Order. See "Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—7. Litigation—Uzbekistan" and Note 33 to our audited consolidated financial statements included elsewhere in this Annual Report on Form 20-F. In conjunction with the DPA and pursuant to the SEC Order, we are required to retain, at our own expense, an independent compliance monitor. Pursuant to the DPA and the SEC Order, the monitorship will continue for a period of three years from the date of appointment and the term of the monitorship may be terminated early or extended depending on certain circumstances, as ultimately determined and approved by the DOJ and the SEC. The monitor assesses and monitors our compliance with the terms of the DPA and the SEC Order as well as reviews and evaluates the effectiveness of our policies, procedures, practices, internal accounting controls, record keeping and financial reporting as they relate to our current and ongoing compliance with the anti-bribery, books and records and internal accounting controls provisions of the FCPA and other applicable anti-corruption laws, and makes recommendations reasonably designed to improve the effectiveness of our internal accounting controls and FCPA corporate compliance. See also "—We are subject to anti-corruption laws in the jurisdictions in which we operate, including anti-corruption laws of Russia and the US Foreign Corrupt Practices Act (the "FCPA"), and we may be subject to the UK Bribery Act 2010 (the "UK Bribery Act"). Our failure to comply therewith could result in penalties which could harm our reputation and have a material adverse effect on our business, financial condition and results of operations."

We have incurred significant costs in connection with the disposition of the matters covered in the DPA and SEC order, including retention of legal counsel and other advisors and other costs related to the investigations undertaken in connection with these matters. We currently cannot estimate additional costs that we are likely to incur in connection with compliance with the DPA and the SEC Order, including the ongoing obligations relating to the monitorship, our obligations to cooperate with the agencies regarding their investigations of other parties, and the costs of implementing the changes, if any, to our internal controls, policies and procedures required by the monitor. However, such costs could be significant. See also “—We could be subject to criminal prosecution or civil sanction if we breach the DPA and the SEC Order, and we may face other potentially negative consequences relating to the investigations by, and agreements with, the DOJ and SEC and other authorities, including additional investigations and litigation.”

We could be subject to criminal prosecution or civil sanction if we breach the DPA and the SEC Order, and we may face other potentially negative consequences relating to the investigations by, and agreements with, the DOJ and SEC and other authorities, including additional investigations and litigation.

Failure to comply with the terms of the DPA, whether such failure relates to alleged improper payments, internal controls failures, or other non-compliance, could result in criminal prosecution by the DOJ, including for the matters addressed in the DPA. Under such circumstance, the DOJ would be permitted to rely upon the admissions and the waiver of certain defenses we made in the DPA. Similarly, breach of the SEC Order could result in additional penalties against the Company.

Criminal prosecution by the DOJ as a result of a breach of the DPA or penalties imposed as a result of noncompliance with the SEC Order could subject us to penalties and other costs and could have a material adverse effect on our business, financial condition, results of operations, cash flows or prospects.

We may also face other potentially negative consequences relating to the investigations by, and agreements with, the DOJ, SEC, and other authorities. None of the DPA and the SEC Order prevents these or any other authorities from carrying out certain additional investigations with respect to the facts not covered in the agreements or in other jurisdictions, or prevents authorities in other jurisdictions from carrying out investigations related or unrelated to the matters which being investigated. Additionally, on March 19, 2019, a proposed class action complaint, captioned *Salim v. Mobile TeleSystems PJSC et al.*, case number 1:19-cv-01589, was filed in the United States District Court for the Eastern District of New York against us and certain of our managers. The complaint was filed by an individual securities holder on behalf of himself and all similarly situated securities holders and alleges violations of Sections 10(b) and 20(a) and Rule 10b-5 of the Exchange Act with respect to certain public disclosures made by us regarding our former business in Uzbekistan and investigations carried out by the SEC and DOJ related thereto. The complaint further alleged that such disclosure omissions led to a decline in the market value of our securities resulting in losses and damages to the plaintiff and other securities holders. The plaintiff seeks damages in an unspecified amount, prejudgment and post-judgment interest and attorneys’ fees, expert fees and other costs and other and further relief.

Any collateral investigations, litigation or other government or third party actions resulting from these, or other, matters could have a material adverse effect on our business, financial condition, results of operations, cash flows or prospects. In addition, any ongoing media and governmental interest in the investigations, the agreements and claims could impact the perception of us and result in reputational harm.

The controlling shareholder has a possibility to determine certain decisions of our governing bodies.

Sistema, which is a public company, owns a controlling stake in MTS. According to the applicable Russian legislation, Sistema has a possibility to exercise its controlling rights, which may become decisive during consideration of a number of issues by our General Meeting of Shareholders, including, but not limited to (i) making decisions on the issues, requiring simple majority of votes our shareholders participating at the General Meeting, for example, in case of making decisions on dividends payment or approval of the our annual reports; (ii) appointment of the majority or dismissal of all members of our Board of Directors members and other matters. Sistema can take actions that may conflict with the interests of other security holders. Furthermore, our international, credit, investment and other ratings, which determine, *inter alia*, peculiarities of our operations, terms of raising debt financing and our other activity can be affected by our controlling shareholder's activity and (or) its ratings. See also “—Risks Relating to our Financial Condition—A change in control could have a material adverse effect on our financial condition and results of operations.”

Controlling shareholder as well as other our shareholders has a right to receive dividends at the amount proportionate to the number of our shares belonging to a respective shareholder. For information about dividends see “Item 5—Operating and Financial Review and Prospects—B. Liquidity and Capital Resources—Capital Requirements.” The indentures relating to our outstanding notes and other debt do not restrict our ability to pay dividends. As a result of paying dividends, our reliance on external sources of financing may increase, our credit rating may decrease, and our cash flow and ability to repay our debt obligations, or make capital expenditure, investments and acquisitions could be materially adversely affected.

Difficulties with operational management of the acquired businesses could hamper our continued growth and profitability.

Our continued growth depends, in part, on our ability to identify attractive opportunities in markets that will grow and on our ability to manage the operations of acquired or newly established businesses. Our acquisitions may occur in countries that represent new operating environments for us and, in many instances, may be located a great distance from our corporate headquarters in Russia. We therefore may have less control over their activities. We may also face uncertainties with respect to the operational and financial needs of those businesses and may, in the course of our acquisitions, incur additional debt to finance the acquisitions and/or take on substantial existing debt of the acquired companies. In addition, it is possible that the countries into which we may expand will be emerging markets and, as with countries of our current presence, subject to greater political, economic, social and legal risks than more developed markets.

For example, see “—Legal Risks and Uncertainties—An outcome of the proceedings relating to sustaining operations of our subsidiary in Turkmenistan is unpredictable” and “—The inability of our subsidiaries in the countries in which we are present to maintain control over their operations and assets may adversely affect our business, financial condition and results of operations.” Our failure to identify attractive opportunities for expansion into new markets and to manage the operations of acquired or newly established businesses in these markets could hamper our continued growth and profitability, and have a material adverse effect on our financial condition, results of operations and prospects.

Acquisitions and mergers may pose significant risks to our business.

We have expanded our business through a number of acquisitions. We will continue to evaluate opportunities to acquire, invest in or merge with other existing operators or license holders in the CIS and in growing markets outside the CIS, as well as other complementary businesses. In 2015, our acquisition focus covered regional mobile operators, as well as one of the largest system integrators and complex IT solutions providers in Russia, NVG JSC (“NVision Group”). In 2016, we acquired 100% of shares in SMARTS Yoshkar-Ola JSC (“Smarts-Yoshkar-Ola”) and participated in MTS Bank’s additional share issuance. In 2017-2019, our acquisitions focused on various segments, including communication and software development companies, providers of cloud services, as well as management investment and other non-telecom companies.

These and other business combinations entail a number of risks that could materially and adversely affect our business, financial condition, results of operations and prospects, including the following:

- assumption of the acquired target’s liabilities and contingencies;
- failure to realize any of the anticipated benefits or synergies from any acquisitions or investments we complete;
- problems connected with integrating the acquired businesses, technologies or products into our operations;
- incurrence of debt to finance acquisitions and higher debt service costs related thereto;
- difficulties in retaining business relationships with suppliers and customers of the acquired companies;
- risks associated with businesses and markets in which we lack experience, including political, economic, social, legal and regulatory risks and uncertainties;
- competition risks;
- potentially incorrect assessment of the value of any acquired target resulting from the facts we could not have known at the time of evaluation (subsequently discovered facts);
- more onerous government regulation;
- potential loss of key assets of the acquired company;
- potential loss of key employees of the acquired company;
- potential write-offs of acquired assets; and
- lawsuits arising out of disputes over ownership of acquired assets and/or the enforcement of indemnities relating to the title to such assets.

See also “—Legal Risks and Uncertainties—The inability of our subsidiaries in the countries in which we are present to maintain control over their operations and assets may adversely affect our business, financial condition and results of operations” and “—Risks Relating to our Financial Condition—We may be adversely affected by the current economic environment.”

In addition, companies that we acquire may not have internal policies, including accounting policies and internal control procedures that are compatible, compliant or easily integrated with ours.

If any of our future business combinations is structured as a merger with another company, or we merge with or absorb a company subsequent to its acquisition by us, such a merger would be considered a corporate reorganization under Russian law. This would entitle our creditors to file a claim seeking to accelerate their claims or terminate the respective obligations and seek damages. The creditors would need to prove in court that we will not perform our obligations in due course and the amount of damages suffered. Secured creditors would also be required to prove that the security provided by our shareholders, any third parties or us is not sufficient to secure our obligations. Creditors whose claims are secured by pledges do not have the right to claim additional security.

As of December 31, 2017, we held a 26.61% stake in MTS Bank. In 2018, we acquired a 28.63% stake in MTS Bank from Sistema for RUB 8.27 billion, thus increasing our effective ownership in MTS Bank to 55.4%. In February 2019, we acquired a 39.48% stake in MTS Bank for RUB 11.4 billion, as a result of which our effective ownership in MTS Bank reached 94.97%. In December 2019, we increased our stake in MTS Bank up to 99.7% by acquiring it from Sistema. The increase of our share in MTS Bank is in line with our strategy to diversify the business, achieve synergies and develop innovative financial services.

On July 27, 2017, we acquired 100% of the shares of Bashkortostan Cellular Communication OJSC in order to gain access to the frequency resource in the range of 2100 MHz in the territory of the Republic of Bashkortostan. On September 29, 2017, we acquired 30% in the share capital of Sistema-Capital Management Company LLC, one of the largest management companies in Russia in terms of collective investment volume. In October 2017, we acquired a 50.82% stake in Oblachny Retail LLC (operating under LiteBox trademark), a Russian retail software developer. In December 2017, we entered the gaming market through the acquisition of Praliss Enterprises Limited, which manages the Gambit Esports team.

In September 2018, we acquired 100% in the share capital of Avantage LLC for RUB 8.9 billion (including net debt) from a group of private investors. Avantage LLC owns the Avantage data processing center project in Lytkarino, Moscow region, one of the largest data centers in Russia by number of racks.

In September 2018, we acquired a 13.7% stake in Youdo Web Technologies Limited (Cyprus), the owner of YouDo, one of the largest Russian online service providers matching freelance labor demand and supply for everyday and business tasks for USD 12 million.

In December 2018, we acquired 100% in the share capital of IT-Grad 1 Cloud LLC, one of the largest cloud providers on the Russian Infrastructure-as-a-Service market. The company, which holds all IT-Grad group's cloud assets, was bought through our Dutch subsidiary Vostok Mobile B.V. from a group of private investors for a total of RUB 2,491 million, including net debt.

In 2019 we also acquired certain companies such as United Russian Studios JSC, JUST AI Limited and others. See "Item 4—Information on Our Company—A. History and Development" for further information.

These acquisitions have allowed us to diversify our business. However, additional risks relating to acquired companies' liabilities and non-achievement of initial financial and operational targets may arise in connection with these acquisitions. See also Note 4 to our audited consolidated financial statements.

We may also be involved in various litigation to protect our title or other rights related to acquired businesses and incur loss.

In addition, a merger or any corporate reorganization or business combination that constitutes a "major transaction" under Russian law would trigger the right of our shareholders who abstain from voting on or vote against such reorganization or transaction to sell, and our obligation to buy, their shares in an amount representing up to 10% of our net assets as calculated under Russian Accounting Standards. See "—Legal Risks and Uncertainties—Shareholder rights provisions under Russian law could impose additional obligations and costs on us, which could have a material adverse effect on our business, financial condition, results of operations and prospects."

If we cannot successfully develop our network or integrate the acquired companies, we will be unable to expand our subscriber base and maintain our profitability.

Our ability to increase our subscriber base depends upon the success of our network expansion.

We have expended considerable amounts of resources to enable both organic expansion and expansion through acquisitions, and we plan to continue to do so. Limited information regarding the markets into which we have or are considering expanding, through either acquisitions or new licenses, complicates accurate forecasts of future revenues from those regions, increasing the risk that we may overestimate these revenues. In addition, we may not be able to integrate previous or future acquisitions successfully or operate them profitably. Any difficulties encountered in the transition and integration process and in the operation of acquired companies could have a material adverse effect on our results of operations.

The build-out of our network is also subject to risks and uncertainties, which could delay the introduction of services in some areas and increase the cost of network construction, including difficulties in obtaining base station sites on commercially attractive terms. Further, telecommunications equipment used in Russia and other CIS countries is subject to governmental certification and periodic renewals of the same. We are also required to obtain permits and governmental certification for the operation of telecommunications equipment and/or permission for the import and export of certain network equipment, which can result in procurement delays and slower network development. The failure of any equipment we use to receive timely certification or re-certification, as applicable, could hinder our expansion plans. See also “—Risks Relating to our Financial Condition—If we are unable to obtain adequate capital, we may have to limit our operations substantially, which could have a material adverse effect on our business, financial condition, results of operations and prospects.” In particular, in 2019 considerable changes to the Federal law No. 412 “On Accreditation in the National Accreditation System” dated December 28, 2013, which increased powers (authority) of Rosaccreditation relating to control over unfairly accredited persons, came into force. These changes introduced stricter requirements to accredited persons’ activities and accreditation experts and provide for additional basis for suspension and termination of accreditation. As a result, these changes may lead to an increased cost of certification services and increase time needed for acquiring certifications, which may affect delivery time of certified equipment in Russia.

For example, the import and export of products containing cryptographic hardware is subject to special documentation requirements and approvals. As telecommunications networks comprise various components with cryptographic hardware, we must comply with these requirements in order to import such components. Moreover, where imported equipment does not contain cryptographic hardware, the federal customs service requires manufacturers to provide written confirmation regarding the absence of such hardware. The range of goods requiring the provision of such “certificates of conformance” by suppliers and manufactures prior to their import into Russia has also been expanded to cover most of our key network components, and imported radioelectronic equipment is required to be licensed by the Russian Ministry of Industry and Trade.

Our inability to develop additional sources of revenue and competitive services could have a material adverse effect on our business, financial condition, results of operations and prospects.

Until recently, customer growth has been our principal source of revenue growth. Currently, however, increasing competition, market saturation and technological development lead to the increased importance of data services in the markets in which we operate. As a result, data services became the key driver of our revenue growth and we will therefore need to continue to develop new competitive services, including value-added, 3G, LTE, and others, and to consider vertical integration opportunities through the development or acquisition of dealers in order to provide us with sources of revenue in addition to standard voice services. We invest in new businesses, such as artificial intelligence, financial technologies, Big Data, IoT (in particular, we participate in realization of national program “Digital Economy of the Russian Federation”), cloud services and others. Decrease or absence of demand for new services, as well as competition increase on current markets, or new companies’ entries may lead to revenue decrease and necessity to revise our strategy regarding new businesses, which may require additional investments. Our inability to develop additional sources of revenue could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we cannot interconnect cost-effectively with other telecommunications operators, we may be unable to provide services at competitive prices, which may diminish our market share and result in a loss of revenues and margins.

Our ability to provide commercially viable services depends on our ability to continue to interconnect cost-effectively with zonal, intercity and international fixed-line and mobile operators in Russia and other countries in which we operate. Interconnect fees are established by agreements with network operators and vary depending on the network used, the nature of the call and the call destination.

Although Russian legislation requires that operators of public switched telephone networks that are deemed to be “substantial position operators” cannot refuse to provide interconnect services or discriminate against one operator over another, we believe that, in practice, some operators attempt to impede wireless operators by delaying interconnect applications and establishing technical conditions for interconnecting that can be met only by certain operators.

Any difficulties or delays in interconnecting cost-effectively with other networks could hinder our ability to provide services at competitive prices, or at all, causing us to lose our market share and revenues, which would have a material adverse effect on our business and results of operations. See also “—If we or any of our mobile network operator subsidiaries operating in Russia are identified as an operator occupying a “substantial position,” the regulator may reduce our interconnect tariffs which, in turn, may have a material adverse effect on our financial condition and results of operations.”

In addition, as part of the restructuring of Svyazinvest, a fourth national mobile operator in Russia was established by the combination of “Tele2 Russia” and the mobile assets of Rostelecom in 2014, which started its operations in 2015 under the “Tele2” brand. As Svyazinvest controlled regional fixed-line operators in all regions of Russia (other than Moscow), a mobile operator established as part of the Svyazinvest group (mobile assets were consolidated into LLC “T2 RTK Holding”) may receive preferential terms for interconnecting with these operators, which would allow it greater flexibility in setting tariffs and could put us at a competitive disadvantage. See also “—We face increasing competition in the markets where we operate, which may result in reduced operating margins and loss of market share, as well as different pricing, service or marketing policies.”

We may not realize the benefits we expect to receive from our investments in 3G and 4G wireless services and Internet of Things (IoT) technologies, which could have a material adverse effect on our business and results of operations.

In May 2007, the Federal Service for Supervision in the Area of Communications and Mass Media awarded MegaFon, VimpelCom and us a license to provide 3G services in the Russian Federation. In July 2012, these three companies and Rostelecom were awarded licenses to provide 4G services.

Following the integration of Rostelecom's mobile assets and Tele2 Russia in 2014, Tele2 Russia got control over licenses to provide 3G and 4G services. The 3G license allows us to provide mobile radiotelephone services using the International Mobile Telecommunications-2000 ("IMT-2000/UMTS") standard. The 4G license allows us to provide services using the LTE standard. The 4G wireless services provide faster, higher quality data transfer and/or streaming capabilities, as compared to 2G and 3G, and may pose additional competition for 3G providers. In December 2017, the State Commission for Radio Frequencies issued a decision allowing the use of frequency bands previously allocated for LTE mobile communications for NB-IoT technology. Historically, mobile operators that are developing 3G and 4G networks experienced various difficulties and challenges, including a limited supply of compatible handsets, limited international roaming capabilities, as well as various 3G and 4G software and network related problems. We may experience similar problems or encounter new difficulties when developing our 3G and 4G networks (including NB-IoT) and may be unable to fully resolve them. For example, we cannot be certain that:

- we will be able to build-out our 4G and NB-IoT network in a timely manner or within the time frame stipulated by the license terms;
- our 3G and 4G networks and services (including NB-IoT) will deliver the quality and level of service that our customers demand or expect;
- we will be able to provide all contemplated 3G and 4G services (including NB-IoT) at reasonable prices and within a reasonable timeframe;
- manufacturers and content providers will develop and offer new marketable products and services for our 3G and 4G networks (including NB-IoT) on a timely basis;
- demand for our 4G services (including NB-IoT) will not be lower than expected;
- our 3G and 4G networks will be commercially viable in all of the locations we are required to operate pursuant to our 3G and 4G licenses;
- our competitors will not offer similar services at lower prices; and
- changes in governmental policies, rules, regulations or practices will not affect our network rollout or our business operations.

See also "—If we cannot successfully develop our network or integrate the acquired companies, we will be unable to expand our subscriber base and maintain our profitability."

In addition, Russian military authorities also use frequencies in the 3G and 4G spectrum, which may limit the availability of 3G and 4G frequencies for commercial use in certain areas. During the construction of our 3G and 4G networks, there is also a risk that the frequencies assigned to us for commercial use may overlap with those used by the Russian military authorities. For example, conflicts over the availability of frequency reserved for military use in Moscow caused delay in the commercial launch of 3G services by all 3G license-holders in Moscow, despite the fact that some of these frequencies were cleared for commercial use in 2009. If a similar conflict were to occur, it could cause problems or delays in the development and operation of our 3G and 4G networks in Russia.

Potential competition from other 3G and 4G providers, together with any problems relating to the rollout of our 3G and 4G networks and provision of 3G and 4G services in the future, could materially adversely affect our business, financial condition and results of operations.

In December 2013, July 2014 and in July 2017, the State Commission for Radio Frequencies introduced several modifications to the conditions of using the frequency band for mobile radio communication networks. These changes resulted in the implementation of the principle of technological neutrality for frequency bands 900 MHz (UMTS and LTE), 1800 MHz (LTE) and 2100 MHz (LTE), and included the imposition of certain additional obligations on network operators. Pursuant to these modifications, in case of using frequencies on the terms of technological neutrality principle, we are, *inter alia*, obliged to provide network coverage to settlements with lower subscriber numbers, where the commercial rationale for doing so may otherwise be limited. Such changes lead to additional costs for the construction of our 3G and 4G wireless networks and may therefore adversely affect our business, financial condition and results of operations.

If we are unable to successfully develop and/or deploy 4G and 5G wireless services in the countries in which we operate, or if any operators in those markets obtain a significant technological and/or commercial advantage over us in 4G and 5G wireless services, it may have a material adverse effect on our business and results of operations in the long term.

The next step in the development of telecommunications in the countries where we operate is the evolution of 4G/LTE mobile telecommunication technology. The cost of 4G/LTE network deployment and quality of services (including data speed and quality of radio coverage) depends on the band and the width of frequency range given to an operator.

In 2012 outside of the auction process, the State Commission for Radio Frequencies granted Scartel (operating the “Yota” retail brand) a paired range of LTE frequencies (2x30 MHz) in the 2.5 2.7 GHz band for use in the entire territory of Russia. The remaining frequencies, 40 MHz of the 2.5 2.7 GHz band, were allocated evenly during the auction among four major market participants (VimpelCom, MegaFon, Rostelecom and us). Initially, it was planned that all operators would receive equal access to the Scartel infrastructure, which would allow each operator to reduce its 4G/LTE network development costs.

On October 1, 2013, MegaFon acquired Maxiten Co Limited, which had acquired 100% of shares in Scartel and Yota Ltd. from Garsdale. The transaction was approved by a general shareholders’ meeting of MegaFon and by the Federal Antimonopoly Service (the “FAS”). As a result of this transaction, MegaFon obtained a competitive advantage in terms of LTE network development costs and may also obtain an advantage in LTE network performance. In addition, as a result of this deal, MegaFon consolidated the financial and operational indicators of Scartel/Yota, which increased its formal market share in the mobile communications market.

Significant material resources for the introduction of such technologies may be required, which could have a material adverse effect on our business and results of operations. Furthermore, the limited number of available frequencies may prevent us from realizing the full benefits we expect to receive from the development of a 4G network, because our network capacity would be constrained and our ability to expand limited.

Starting from 2017 there have been discussions on allocation frequencies in order to construct 5G network in Russia, deployment of which is currently actively negotiated by operators and regulators. The greater part of frequency spectrum suitable for 5G network in Russia, is partially or fully occupied by other users (for example, satellite communication companies use the most suitable frequencies for 5G in 3.5 GHz band), including state-owned companies. Significant expenses and time may be required to clear frequencies, however the frequency conversion mechanism has not been fully defined yet and if it will be realized, there is no assurance that sufficient frequencies optimal for 5G deployment will be cleared in low-band spectrum (“sub-6”).

As a solution, the regulator is considering creation of a Single Infrastructure Operator, which will be assigned with the 5G frequencies, and, as one of the discussed variants, will construct a single 5G network in Russia mainly using equipment produced in Russia and will maintain this network. It is planned that the Single Infrastructure Operator will operate as a technological platform based on which independent market players will develop and provide a wide range of services to clients. According to market players and certain industry experts, this solution has variety of advantages as well as some disadvantages and risks as compared to traditional network deployment by operators on a free and non-discriminatory basis.

Final regulator decision on frequency allocation for 5G will significantly affect process of mobile communication market development and may lead to occurrence of certain difficulties, including extension of time needed for putting 5G network into operation, increase in capital and operating expenditures, failure to realize all 5G technological advantages caused by separation of 5G and earlier generation network infrastructure, realization of market advantages by certain players due to non-equal frequency allocation or obtaining of other technological advantages connected with frequency allocation. All of these factors may affect our ability to develop 5G network, which in turn may have a material adverse effect on our business.

Moreover, if we cannot develop a commercially viable 4G network, and one of our competitors does, that competitor would have an advantage over us, which in turn may have a material adverse effect on our business.

Disruptions on our networks and information systems could lead to a loss of subscribers, damage to our reputation, violations of the terms of our licenses and subscriber contracts, penalties and have material adverse effect on our business and financial condition.

We are able to maintain our operations only to the extent that our network infrastructure, information systems and data processed therein is protected from unlawful actions, including hacker and targeted attacks, technical malfunctions, power failures and natural disasters. Any system failure, accident or security breach that causes interruptions in our operations could impair our ability to provide services to our customers or may influence other business processes, any of which could materially adversely affect our reputation, business and results of operations.

In addition, to the extent that any disruption or security breach results in a loss of or damage to customers’ personal data or applications, or inappropriate disclosure of confidential information, we may incur liability as a result, including costs to remedy the damage caused by these disruptions or security breaches.

While we maintain backup systems for our telecommunications equipment, software and data bases, network management, operations and maintenance systems, these systems may not ensure recovery in the event of a network or information systems failures. In particular, in the event of extensive software and/or hardware failures, significant disruptions to our systems could occur, leading to our inability to provide services. The quality of our services in roaming (including roaming between networks) also depends, inter alia, on the network quality of our roaming partners, which is out of our control. Disruptions in our provision of services could lead to a loss of subscribers, damage to our reputation, violations of the terms of our licenses and subscriber contracts and penalties.

Our computer and communications hardware is protected through technical and software safeguards. However, it is still vulnerable to fire, storm, flood, loss of power, telecommunications failures, interconnect failures, physical or software break ins, viruses and similar events. Although our computer and communications hardware is insured against fire, storm and flood, we do not have business interruption insurance to protect us in the event of a catastrophe, even though such an event could have a material adverse effect on our business.

Failure to fulfill the terms of our licenses could result in their suspension or termination, which could have a material adverse effect on our business and results of operations.

Each of our mobile licenses requires service to be offered by a specific date and some contain further requirements as to territorial coverage to be reached by specified dates.

In addition, all of our mobile licenses require us to comply with various telecommunications regulations relating to the use of radio frequencies and numbering capacity allocated to us, network construction, interconnect rules and technical requirements relating to compliance with law enforcement authorities' requests, among others. If we fail to comply with the requirements of Russian or other applicable legislation or meet any terms of our licenses, our licenses and other authorizations necessary for our operations may be suspended or terminated, which could significantly limit our operations. In addition to the impact on our operations, the suspension or loss of certain licenses could also constitute an event of default under certain of our debt obligations and cause certain of our debt to be accelerated. A suspension or termination of our licenses or other necessary governmental authorizations could therefore have a material adverse effect on our business and results of operations.

Failure to renew our licenses, or receive renewed or new licenses with similar terms to our existing licenses, could have a material adverse effect on our business and results of operations.

Our telecommunications licenses have their expiration dates in various years. For a list of the telecommunications licenses held by us, see "Item 4. Information on Our Company—B. Business Overview—Licenses."

These licenses may be renewed upon application to the relevant governmental authorities. Government officials in Russia and the other countries in which we operate consider the compliance with license requirements and the conditions of using the allocated frequency range when deciding whether to renew a license.

Additionally, new mandatory conditions, which relate to the need for further development of the communication network in order to provide licensed communication services for potential users of the communication service in sparsely populated residential areas, may be introduced when deciding whether to renew a license. These new conditions will require additional investment. Moreover, we may be subject to penalties or our licenses may be suspended or terminated for non-compliance with any such new license requirements. The suspension or loss of certain licenses could significantly limit our operations and cause certain of our debt to be accelerated.

If frequencies currently assigned to us are revoked, or if we fail to obtain renewals of our frequency allocations, our network capacity will be constrained and our ability to expand limited, resulting in a loss of market share and revenues.

There is a limited radio frequency spectrum available for wireless operators in each of the regions in which we operate or hold licenses to operate. We are dependent on access to adequate spectrum allocation in each market in which we operate in order to maintain and expand our subscriber base. If frequencies are not allocated to us in the future in the required quantities, with the geographic span and for time periods that would allow us to provide wireless services on a commercially feasible basis throughout all of our license areas, our business, financial condition, results of operations and prospects may be materially adversely affected.

According to the decision of the State Commission for Radio Frequencies No. 13-22-01 dated December 11, 2013, the terms of radio frequency bands usage by radio electronic facilities for mobile communication were supplemented with a requirement to provide the settlements of over 1,000 people with communication services within seven years (depending on the used frequency range and radio technology). If we are not able to fulfill these requirements, our authorizations for the use of radio frequency spectrum might be either terminated or not prolonged in extrajudicial procedure.

A loss of allocated spectrum, which is not replaced by other adequate allocations, could also have a substantial adverse impact on our network capacity. In addition, frequency allocations are often issued for periods that are shorter than the terms of the licenses, and such allocations may not be renewed in a timely manner, or at all. If our frequencies are revoked, or if we are unable to renew our frequency allocations, our network capacity would be constrained and our ability to expand limited, resulting in a loss of market share and revenues.

An increase in the fees for frequency spectrum usage could have a negative effect on our financial results.

The Russian and the CIS legislation requires us to make payments for frequency spectrum usage. A number of projects implemented by MTS in 2016 - 2018, as well as a number of normative acts previously adopted by the Ministry of Communications, resulted in expansion of the range of frequencies that have to be paid for.

The fees for frequency spectrum usage are calculated based on the total frequency band allocated to each operator in each region with such frequency spectrum usage determined with reference to the decision of the State Commission for Radio Frequencies, frequency allocation decisions or to the license conditions.

Fees are directly calculated according to the “Methodology of calculation of a single fee and annual fee for the use of the radio spectrum of the Russian Federation” approved by the order of the Ministry of Communications dated June 30, 2011 No. 164. The rates and coefficients of the aforementioned Methodology are subject to revision at least once every two years. For example, in December 2017 the State Duma approved the Law on federal budget for 2018 and the planned period of 2019 and 2020, which resulted in the increase in rent payments for the radio spectrum usage both in the third quarter of 2018 and in the fourth quarter of 2018. In 2019 the rates turned back to the level of the beginning of 2018. In July 2019, the Ministry of Communications developed and circulated for discussion a draft order “On Amendments to the Methodology for establishing of single fee and annual fee for the use of radio frequency spectrum in the Russian Federation.” The order provides for, inter alia, imposition of payment for radio frequency spectrum usage for 5G technology. Currently, key coefficients, which define the payment amount for using 5G technology, have not been approved. Any increase in payments for the radio spectrum will likely increase our costs and may adversely affect our results of operations.

Any significant increase in the fees payable for the frequency channels that we use or additional frequency channels that we need in Russia or the CIS could have a negative effect on our financial results.

If we are unable to maintain our favorable brand image, we may be unable to attract new subscribers and retain existing subscribers, which may lead to a loss of market share and revenues.

Developing and maintaining awareness of our brands is critical to informing and educating the public about our current and future services and is an important element in attracting new subscribers.

We believe that the importance of brand recognition is increasing as our markets become more competitive. Successful promotion of our brands will depend largely on the effectiveness of our marketing efforts and on our ability to provide reliable and useful products and services at competitive prices. Brand promotion activities may not yield increased operating revenues and, even if they do, such operating revenues may not offset the operating expenses we incur in building our brands.

Furthermore, our ability to attract new subscribers and retain existing subscribers depends, in part, on our ability to maintain what we believe to be our favorable brand image. Negative publicity or rumors regarding our company, our shareholders and affiliates or our services could negatively affect our brand image, which could lead to a loss of market share and revenues. Failure to successfully and efficiently promote and maintain our brands may limit our ability to attract new subscribers and retain our existing subscribers and materially adversely affect our business and results of operations.

MTS Bank's business entails regulatory and operational risks.

MTS Bank's operations are subject to regulation by various government and banking authorities in connection with obtaining and renewing various licenses and permits, as well as with ongoing compliance with existing laws and regulations and with the terms and conditions of MTS Bank's licenses and permits. MTS Bank has the required license in connection with its banking activities issued by the CBR.

Requirements imposed by regulators, including capital adequacy requirements, which are designed to ensure the integrity of the financial markets and to protect customers and other third parties with whom MTS Bank deals, may limit MTS Bank's activities, including its lending, and may increase MTS Bank's costs of doing business, or require MTS Bank to seek additional capital in order to maintain CBR capital adequacy requirements or different varieties of funding to satisfy the CBR's liquidity requirements. The CBR may also amend the capital adequacy requirements and increase the capital adequacy ratios applicable to Russian banks at any time and, in such circumstances, MTS Bank may be forced to seek additional capital or alternative sources of financing to comply with these requirements. Such additional capital or alternative sources of financing may not be available or may only be available on commercially unacceptable terms.

If MTS Bank's capital position were to decline below the minimum statutorily required levels of capital adequacy, its banking licenses could be suspended or revoked and it could encounter difficulties in continuing to operate its business and obtaining funding, which could materially adversely affect its business, financial condition, results of operations and prospects. MTS Bank's capital adequacy level may decrease organically with the growth of business or the payment of dividends. In addition, any breach of regulatory requirements in the Russian Federation could expose MTS Bank to potential liability and other sanctions, including the loss of general banking license. If the CBR were to suspend or revoke MTS Bank's general banking license, then this would render MTS Bank unable to perform any banking operations and/or would lead to winding-up of its business. Our shareholding in MTS Bank may require us to make subsequent investments in the share capital of the bank in order to sustain growth of MTS Bank's business as well as to comply with the capital adequacy requirements and relevant banking regulations.

Uncertainty in the international financial markets, further tightening in credit conditions and contraction of the global economy and markets in which MTS Bank operates (including the impact of COVID-19), has adversely impacted, and could adversely impact, should the market conditions continue to worsen, MTS Bank's business and operating results due to:

- decreases in MTS Bank's net interest income;
- decreases in the demand for MTS Bank's credit products as a result of higher interest rates;
- significantly increased non-performing loans and loan provision charges, loan losses and write-offs;
- decreases in the business activity of Russian companies and the credit-worthiness of Russian companies and individuals;
- increases in borrowing costs and reduced, or zero, access to the capital markets due to unfavourable market conditions;
- currency volatility;
- liquidity constraints;
- outflows of deposits from accounts;
- significant declines in the market values of securities held in MTS Bank's trading and available for sale portfolios; and
- deterioration of capital adequacy.

Any of the factors discussed in the preceding paragraphs could adversely affect the financial condition of MTS Bank and its customers and may result, among other things, in a reduction in MTS Bank's capital adequacy ratios and profits, pressure on credit risk concentration levels, an increase in exchange rate risk and losses, higher funding costs, a change in the strategy of MTS Bank or curtailment of some business operations due to increased risks. Moreover, any of these factors may cause a decrease in customer funds, a reduction in the demand for loans, foreign currency, investment and other banking transaction services that customers carry out with MTS Bank, as well as a general deterioration in the quality of MTS Bank's loan book and/or a reduction in the market values of securities or other assets held on MTS Bank's balance sheet, leading to possible defaults of such loans and/or the need for increased loan provisions. Should any of this take place, this could materially adversely affect our business, financial condition and results of operations.

Failure to monitor, manage and prevent MTS Bank's operational and technological risks, could have a material adverse effect on our business, financial condition and results of operations.

MTS Bank is exposed to technological risks as banking business requires the development of sufficient communication channels and software, the creation of large automated systems and considerable computer capacity located throughout the Russian Federation. MTS Bank invests considerable time and money in order to upgrade its technologies in a timely manner, centralise its information systems, create appropriate reserves and duplicate capacities, develop internal audit functions and control the operation of its hardware and software, however MTS Bank's IT systems are significantly less developed in certain respects than those of banks in more developed countries. The lack of immediately available consolidated financial and operating data may hinder the ability of MTS Bank's management to make decisions, to react promptly to changes in market conditions and to detect fraud and non-compliance with internal procedures. In addition, insufficient integration of the IT system increases MTS Bank's operational risks and the costs of further business development.

MTS Bank's ability to operate its business depends on its ability to protect the computer systems and databases which MTS Bank operates and uses from the intrusion of third parties who may attempt to gain access to MTS Bank's computer systems, networks or databases through the Internet or otherwise. In addition, MTS Bank is exposed to risk of fraud by employees or outsiders, mismanagement, unauthorised transactions by employees and operational errors, including clerical or record keeping errors or errors resulting from faulty computer or telecommunications systems. Given MTS Bank's high volume of transactions, errors may be repeated or compounded before they are discovered or rectified. In addition, a number of transactions at MTS Bank are processed manually, which may further increase the risk that human error or employee tampering or manipulation will result in losses that are difficult to detect. There can be no assurance that MTS Bank will be able at all times to successfully monitor, prevent and manage its operational and technological risks in the future. Any failure to do so could materially adversely affect our business, financial condition and results of operations.

MTS is a part of the Sistema group and may potentially enter into agreements with other members of the group (i.e. related parties transactions) on terms, which are different from those that would be obtainable on an arm's length basis

We have purchased interests in the following companies from Sistema: Nvision Group JSC, United Russian Film Studios JSC and MTS Bank. We are entering into agreements with other companies within the Sistema group for supply of switching and subscriber network equipment medical services, license agreements, agreements on providing access to the infrastructure for installation of communication equipment, leasing of non-residential real-estate, rent of cloud services and other services. According to the applicable Russian legislation and notwithstanding MTS' effective control procedures in respect of related parties transactions, such as verification whether such transactions comply with the terms on a market, including mandatory procedures with respect to consideration of related parties transactions with the companies within the Sistema group by the Audit Committee, a number of transactions with the companies within the Sistema group may potentially be concluded on terms, which are different from those that would be obtainable on an open market.

See "Item 7—Major Shareholders and Related Party Transactions—B. Related Party Transactions" and Note 30 to our audited consolidated financial statements.

In the event that our past or future interested party transactions are successfully challenged, our business, financial condition, results of operations and prospects could be materially adversely affected.

We own less than 100% of the equity interests in some of our subsidiaries. In addition, certain of our wholly owned subsidiaries have had other shareholders in the past. We and our subsidiaries in the past have entered into, and continue to enter into, transactions that may be considered to be "interested party transactions" for the purposes of Russian law, requiring in some cases consent or approval by disinterested directors, disinterested independent directors, disinterested shareholders or owners of voting shares, depending on the nature of the transaction and parties involved. The provisions of Russian law No. 208 "On Joint-Stock Companies" dated December 26, 1995, as amended (the "Joint Stock Companies Law") relating to "interested party transactions" was amended in 2016 and may be subject to different interpretations taking into account, *inter alia*, the insufficiency of court practice in respect of the new amendments. As a result, it is possible that our and our subsidiaries' interpretation and application of these provisions could be subject to challenge. Any such challenge, 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 the event that our minority shareholders or the minority shareholders of our subsidiaries do not consent to or approve certain transactions or other matters requiring their consent or approval we could be limited in our operational flexibility, and our business, financial condition, results of operations and prospects could be materially adversely affected.

Russian law requires a three-quarters majority vote of the holders of voting stock present at a shareholders' meeting to consent to or approve certain transactions and other matters, including, for example, charter amendments, major transactions involving assets in excess of 50% of the total assets of the company, purchase of offered shares by the company and certain share issuances. In addition, a 95% or a unanimous vote is required to approve certain matters, for example, certain charter amendments regarding shareholders' rights. A majority of disinterested shareholders participating in the voting is required to consent to or approve an "interested party transaction" in certain cases. In the event that our minority shareholders or minority shareholders of our subsidiaries do not consent to or approve such transactions or other matters requiring their consent or approval, we could be limited in our operational flexibility, and our business, financial condition, results of operations and prospects could be materially adversely affected.

Our competitive position and future prospects depend on our senior managers and other key personnel and our inability to attract, retain and motivate qualified key personnel could have a material adverse effect on our business, financial condition and results of operations.

Our ability to maintain our competitive position and to implement our business strategy is dependent to a large degree on the services of our senior management team and other key personnel.

Moreover, competition in Russia and in the other countries where we operate for personnel with relevant expertise is intense due to the relatively small number of qualified individuals. As a result, we attempt to structure our compensation packages in a manner consistent with the evolving standards of the labor markets in these countries. We are not insured against the detrimental effects to our business resulting from the loss, dismissal, or unavailability of our key personnel, resulting from a number of reasons, including but not limited to COVID-19. In addition, it is not common practice in Russia and the other countries where we operate to purchase key-man insurance policies, and we do not carry such policies for our senior management and other key personnel. The loss or decline in services of members of our senior management team or an inability to attract, retain and motivate qualified key personnel could have a material adverse effect on our business, financial condition and results of operations.

The entry of mobile virtual network operators into the Russian mobile communications market could increase competition and subscriber churn, resulting in a possible loss of our market share and decreased revenue.

On December 29, 2008, the Ministry of Communications and Mass Media adopted an order establishing the requirements for mobile virtual network operators ("MVNOs"). In 2017, new requirements relating to services of mobile radio communication and telephone communications while using business models of mobile radio communication and telephone communications virtual networks were adopted. MVNOs are companies that provide mobile communications services but do not own the radio frequencies and, in some cases, the network infrastructure required to do so. According to the order, MVNOs in Russia must be licensed, and their use of frequencies and infrastructure and rendering of services is to be done pursuant to agreements entered into between MVNOs and existing frequency holders. However, existing frequency holders are under no obligation to enter into such agreements with the MVNOs.

By introducing this regime, the Ministry aims to increase competition in the Russian mobile services market, which is currently dominated by MTS, VimpelCom and MegaFon. The existing frequency holders, including us, may receive revenues from MVNOs for the use of our frequencies and network infrastructure. However, in the event we lose either subscribers to MVNOs that lease their frequencies and infrastructure from other operators or MVNOs that lease their frequencies and infrastructure from us, we will be deprived of the revenue streams from both the subscribers and the MVNOs. The MVNOs may also establish aggressive tariffs, which could result in increased subscriber churn and/or driving down the tariffs of all mobile operators.

For example, Skartel (under the “Yota” brand), Rostelecom, Tinkoff Bank operate as MVNOs in the Russian mobile communications market.

It is currently unclear how the emergence of new MVNOs in the market or any of the foregoing trends might affect market competition and subscriber churn, but this could have a material adverse effect on our business, financial condition, results of operations and prospects.

A finding by the FAS that we have acted in contravention of antimonopoly legislation could have a material adverse effect on our business, financial condition and results of operations.

Our businesses have grown substantially through the acquisition and formation of companies, many of which required the prior approval of, or subsequent notification to, the FAS or its predecessor agencies.

In part, relevant legislation in certain cases restricts the acquisition or formation of companies by groups of companies or individuals acting in concert without such prior the FAS approval. While we believe that we have complied with the applicable legislation for our acquisitions and formation of new companies, this legislation is sometimes vague and subject to varying interpretations. If the FAS were to conclude that our acquisition or formation of a new company was done in contravention of applicable legislation, or find our actions insufficient to rectify past violations of antimonopoly laws, or issue new warnings and requests in the future, it could impose administrative sanctions and require the divestiture of such company or other assets, which could have a material adverse effect on our business, financial condition and results of operations.

In recent years, the FAS has been investigating mobile operators, including MTS, for suspected violations of antimonopoly laws. For example, see “Item 8—Financial Information—A. Consolidated Statements and Other Financial Information—7. Litigation—Antimonopoly Proceedings” and “—Changes to the rules and regulations involving roaming charges in Russia may adversely affect our financial condition and results of operations.”

If the FAS finds that we have violated or otherwise acted in contravention of antimonopoly legislation, this could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we are found to have a dominant position in the markets where we operate and are determined to have abused this position, the FAS may be entitled to regulate our subscriber tariffs and impose certain restrictions on our operations.

Under Russian legislation, a company controlling over 35% of a market may be found by the FAS to hold a dominant position in such market. In case of collective dominance of legal entities and in certain instances provided by law, a company could be also categorized by the FAS as dominant under certain conditions even if its share of the corresponding market is less than 35%, but equals to or is higher than 8%. Current Russian legislation does not clearly define “market” in terms of the types of services or the geographic area. In 2016, as a result of certain amendments to the Federal Law No. 135 “On the Protection of Competition,” the register of business entities having more than 35% of a certain commodity market or otherwise occupying a dominant position in the markets in which they operate, which previously listed MTS as occupying a dominant position in certain markets, was repealed. At the same time, the FAS continues to conduct market analysis in order to identify entities holding a dominant position in the markets in which they operate.

Companies recognized as natural monopolies are also considered to have a dominant position in their respective markets. One of our subsidiaries, MGTS, is categorized as a natural monopoly in the Moscow telecommunications market. As a result, MGTS’ tariffs are now subject to regulation by the FAS. In addition, as a natural monopoly, MGTS is obliged to comply with the rules of non-discriminatory third party access to its infrastructure. See also “—Change of regulated tariffs may lag behind MGTS’ real expenses growth, which may negatively impact profitability of our business.”

In the event that we are found in the future to have a dominant position in the markets where we operate and are either determined to have abused the dominant position or found to have committed concerted actions in the market and/or concluded anti-competitive agreements, the FAS will have a right to impose certain restrictions on our operations in such markets. See “Item 4—Information on Our Company—B. Business Overview—Regulation of Telecommunications in the Russian Federation—Regulation in the Russian Federation—Competition, Interconnect and Pricing” for additional information.

If we are found to have violated antimonopoly legislation, an order requiring us to transfer any illegally obtained revenue to the federal budget may be issued in relation to such violations.

According to the Code of Administrative Offences of the Russian Federation, we may be subject to either fixed penalty fine or fine based on total turnover in the market where the violation is conducted, depending on the nature of violation of antimonopoly legislation. The level of fine ranges from 3% to 15% of revenue in the market where the violation is conducted for cartel agreements and from 1% to 15% of revenue for other violations (with 8% being the base level of the fine for all types of violations). If we or any of our subsidiaries were found by the competition authority to be business entities occupying a dominant market position, the competition authority would have a power to impose certain restrictions on our or our subsidiaries’ businesses. In particular, the authorities may impose on us tariffs at levels that could be competitively disadvantageous. If we or any of our subsidiaries were found by the FAS to be business entities occupying a dominant market position with a market share exceeding 70% and determined to abuse such dominant position, the Russian government would have a right to determine the rules of non-discriminatory access to goods or services offered by us. Additionally, geographic restrictions on our expansion could reduce our subscriber base and prevent us from fully implementing our business strategy, which may materially adversely affect our business, financial condition, results of operations and prospects.

If we or any of our mobile network operator subsidiaries operating in Russia are identified as an operator occupying a “substantial position,” the regulator may reduce our interconnect tariffs which, in turn, may have a material adverse effect on our financial condition and results of operations.

In addition to the regulation of dominant operators by the FAS, the Federal Law on Communications provides for the special regulation of telecommunications operators occupying a “substantial position” (i.e., operators which, together with their affiliates, have 25% or more of installed capacity or capacity to carry out transmission of not less than 25% of traffic in a geographically defined zone within the Russian Federation). These regulations provide for governmental regulation of the key terms of such operators’ interconnect agreements, including the interconnect tariffs. In addition, such operators are required to develop standard key terms of interconnect agreements and publish them as a public offer made to all operators who intend to interconnect to the networks of those operators. Refusal of such operators to conduct an interconnect agreement is prohibited, except in cases where such agreement would contradict the terms of their license or other regulatory acts in respect of the unified communications network in the Russian Federation.

For additional information, see “Item 4—Information on Our Company—B. Business Overview—Regulation of Telecommunications in the Russian Federation—Regulation in the Russian Federation.”

At present, the foregoing regulations apply only to fixed-line operators in Russia, including our fixed-line business. Draft legislation was introduced in 2008 that would extend the law to apply to mobile operators. Although the proposed law was not adopted, the risk that similar legislation will be proposed and adopted in the future remains. If any legislation that extends the foregoing regulations to mobile operators is adopted, and we and any of our mobile network operator subsidiaries operating in Russia are identified as operators occupying a “substantial position,” regulators may reduce our interconnect tariffs which, in turn, may have a material adverse effect on our revenues, financial condition and results of operations.

In addition, MGTS is categorized as fixed-line operator occupying a substantial position in the Moscow telecommunications market and its interconnect tariffs are therefore subject to state regulation. In February 2013, Comstar-UTS was removed from the list of “substantial operators” in Moscow and MTS was not included therein. There is however a possibility that we could be categorized as fixed-line operator occupying a “substantial position” in Moscow due to our affiliation with MGTS and because of our integration with Comstar-UTS. As a result of the state regulation of the relevant interconnect rates, we, as “substantial operators,” may be unable to increase these in line with economic developments or any increases of our relevant costs, resulting in a material adverse effect on our financial condition and results of operations. See also “—Change of regulated tariffs may lag behind MGTS’ real expenses growth, which may negatively impact profitability of our business.”

Change of regulated tariffs may lag behind MGTS’ real expenses growth, which may negatively impact profitability of our business.

In addition to holding a “substantial position” in the Moscow telecommunications market, MGTS is included in the register of natural monopolies in the telecommunications market. Consequently, tariffs for basic services rendered to public switched telephone networks subscribers (fees for providing access to a local telecommunications network, monthly fees for granting subscriber line in a constant use and monthly fees for providing a local telephone connection) are subject to regulation.

Although MGTS is permitted to petition the FAS for increases in tariffs based on such criteria as inflation, increased costs and the need for network investments, it is possible that future requested increases may not be granted or that the FAS may not adequately take such factors into account in setting tariffs. If the permissible tariffs applicable to MGTS do not adequately compensate MGTS for the costs of providing services, our business and results of operations could be materially adversely affected. See also “—If we or any of our mobile network operator subsidiaries operating in Russia are identified as an operator occupying a “substantial position,” the regulator may reduce our interconnect tariffs which, in turn, may have a material adverse effect on our financial condition and results of operations.”

Changes to the rules and regulations involving roaming charges in Russia may adversely affect our financial condition and results of operations.

In 2017, a draft law was submitted for consideration to the State Duma, which was intended to cancel international roaming charges between Russia and Belarus and is currently under consideration. In case the aforementioned law is adopted, any revision of roaming charges may lead to a reduction in our revenues.

Moreover, on September 2018, the Board of sectoral ministries of communications of the Russian Federation and the Republic of Belarus approved a Roadmap aimed at reducing roaming charges between two countries. In December 2018, the Russian party drafted a new project of the Roadmap aimed at cancellation of international roaming in the territory of the Union State in 2019. Later, as a result of negotiations between Russia and Belarus a new project of Roadmap, which assumes cancellation of roaming charges in the territory of the Union State in 2020, was developed. In December 2019, a new version of Roadmap was approved, according to which, cancellation of roaming charges in the territory of the Union State will take place in September 2020. The implementation of this initiative may adversely affect our revenues from roaming charges in Belarus and increase our expenditures incurred in connection with the provision of these services.

In July 2017, the FAS sent a warning to mobile operators, in which it demanded to cancel intra-network roaming. In March 2018, the FAS opened an antimonopoly case against VimpelCom, MTS and MegaFon (in connection with the non-fulfilment of the warning). In August 2018, the FAS found MTS, VimpelCom and MegaFon to have violated the antimonopoly legislation. In December 2018, the FAS imposed a fine in the amount of RUB 737,500 on each of MTS, VimpelCom and MegaFon. As of September 30, 2018 MTS changed charging principles for communication services outside “home” region for all subscribers.

In August 2017, the FAS opened an antimonopoly case against VimpelCom, MTS, MegaFon and T2 Mobile LLC on the grounds of establishing and maintenance of monopolistically high prices for communication services in national roaming and inter-operator roaming agreements. On February 22, 2018 the FAS rendered a decision and found MTS responsible for establishing monopolistically high prices for subscribers for communication services in national roaming. VimpelCom, MegaFon and T2 Mobile were also found guilty for establishing monopolistically high prices for subscribers for communication services in national roaming. In September 2018, following the examination of the case, the FAS imposed administrative fines in respect of each of the operators. The case related to inter-operator roaming agreements against MTS was canceled due to the fact that there had been no violation. See also “—A finding by the FAS that we have acted in contravention of antimonopoly legislation could have a material adverse effect on our business, financial condition and results of operations.”

On December 27, 2018, the Federal Law No. 527 was adopted, under which the intra-network roaming is cancelled, and MTS is obliged to provide subscribers with communication services on its network under the same conditions, regardless of whether a subscriber is in or outside the bounds of his “home network” when moving across the country. In addition, this law excludes the possibility of charging subscribers for incoming calls in intra-network and national roaming. The law came into force on June 1, 2019 and affected our revenue from intra-network and national roaming charges. Any similar regulatory changes which could limit our ability to charge fees for the services provided could have material adverse effect on our business and financial condition.

Any material fines imposed on us or changes to the roaming charges may adversely affect our financial condition and result of operations.

Compliance with the new regulations on IMEI numbers may present us with technical difficulties and may lead to the expenditure of significant resources.

A draft law that enables each mobile communications subscriber to register a user terminal on an International Mobile Equipment Identity (“IMEI”) numbers database was submitted for consideration to the Russian State Duma in 2012 but was rejected.

If similar initiatives are proposed in the future, we may be required to develop a system to monitor IMEI numbers and may need to establish and maintain a database of IMEI numbers, which would necessitate the expenditure of significant technical and financial resources.

The accession of Russia to the World Trade Organization (the “WTO”) may lead to legislative and business changes.

On August 22, 2012, the Russian Federation became a member of the WTO. This may lead to potentially significant changes in Russian legislation including, among others, regulation of foreign investments in Russian companies, competition laws, telecommunications laws, changes in the taxation system and customs regulations in Russia. In addition, the implementation of the WTO rules may lead to increased competition in the markets where we operate. During the period of 2012 to 2019, Russia adopted certain changes to its legislation related to the accession to the WTO, for example, regarding intellectual property laws, tax legislation; however, it is still unclear if, and when, all necessary legislative changes related to the WTO accession will take place. If further new legislation is implemented in Russia as a result of its accession to the WTO, this could have a material adverse effect on our financial condition and results of operations.

We may be required to make significant investments beyond those that are currently planned to preserve our competitive advantage in response to the rapid evolution of fixed network technology.

One of our subsidiaries, MGTS, has devised a number of projects aimed at developing communications networks and expanding availability of telecommunications services for customers. The likely shortage of free cash flow during the current economic downturn could halt such investment programs for the development of new products and services, and possibly lead to a decrease in the number of projects and cutbacks in development programs in the New Moscow and Moscow regions.

The company completed its project on construction of broadband optical networks employing the Gigabit-capable Passive Optical Network (“GPON”) technology with a direct connection of subscribers to an optical network. The applied part of the GPON project’s progress is the creation of a digital platform of IMS core, which enables MGTS to render a larger range of services, including services for the B2G segment. See “Item 4—Information on Our Company—A. History and Development—Capital Expenditures” for further information.

We attract contractors for the construction and upgrade of our network. Due to the currently unfavorable market conditions, some of MGTS' contractors may face a lack of own current assets and/or external finance sources, as well as other reasons, which may lead to the contractor's inability to fulfill contract obligations or, in some cases, lead to bankruptcy. This may negatively affect the terms of our projects' implementation and lead to higher costs. If we are not able to expand and upgrade our network infrastructure in a timely manner and offer new services, or if it is required to make significant investments beyond those that are currently planned, our business, financial condition, results of operations and prospects could be materially adversely affected.

Our intellectual property rights are costly and difficult to protect.

We regard our copyrights, trademarks, patents and similar intellectual property rights, including our rights to certain domain names, as essential to our continued success. We rely upon legislation on intellectual property, trade secret protection laws, as well as confidentiality and/or license agreements or contracts with our employees, customers, partners and others, to protect our proprietary rights. Nonetheless, intellectual property rights are particularly difficult to protect in the markets where we operate. In these markets, the regulatory agencies responsible for the protection of intellectual property rights are inadequately funded, legislation is underdeveloped, piracy and infringement are commonplace, and enforcement of court decisions is problematic.

Litigation may be necessary to enforce our intellectual property rights, to determine the validity and scope of rights of others, or to defend against claims of infringement. Any such litigation may result in substantial costs and diversion of resources and, if decided unfavorably to us, could have a material adverse effect on our business. We also may incur substantial acquisition or settlement costs to the extent that it would strengthen or expand our intellectual property rights or limit our exposure to intellectual property claims of third parties.

If leaks of confidential information (including any information relating to our subscribers) occur, it may negatively impact our reputation and our brand image and lead to a loss of market share, which could materially adversely affect our business, financial condition, results of operations and prospects.

Despite our continuous efforts to protect confidential information, breaches of security and leaks of confidential information, including information relating to our subscribers, may negatively impact our reputation and our brand image and result in a loss of market share or otherwise have a material adverse effect on our business, financial condition and results of operations. For example, in January 2003, part of our database of subscribers, containing private subscriber information, was illegally copied and stolen. In addition, in May 2003, certain subscriber databases of several operators in the North-West Region, including those of MTS, MegaFon, Delta Telecom and two other operators, were stolen. In each case, the stolen databases were thereafter available for sale in Russia. Despite the measures taken, we cannot completely exclude the possibility of such incidents occurring in the future. See also “—Legal Risks and Uncertainties—Russian and foreign legislation on personal data and information security in information systems and communication networks may turn out to be hard to implement and require significant resources. Inability to comply with the requirements may lead to sanctions.”

Alleged medical risks of cellular technology may subject us to negative publicity or risk of litigation, decrease our access to base station sites, diminish subscriber usage and hinder access to additional financing.

Electromagnetic emissions from transmitter masts and mobile handsets may harm the health of individuals exposed for long periods of time to such emissions. The actual or perceived health risks of transmitter masts and mobile handsets could materially adversely affect us or our subsidiaries by reducing subscriber growth, reducing usage per subscriber, increasing the number of product liability lawsuits, increasing the difficulty of obtaining or maintaining sites for base stations and/or reducing the financing available to the wireless communications industry. Each of these potential risks may adversely affect our business, financial condition, results of operations and prospects.

Risks Relating to our Financial Condition

We may be adversely affected by the current economic environment.

As a result of the macroeconomic challenges, resulting from a number of reasons, including but not limited to, COVID-19, credit market crisis (including uncertainties with respect to financial institutions and the global capital markets), decreased prices for major export commodities (including oil and metals) and other factors currently affecting many of the markets in which we operate, our subscribers' disposable incomes and our vendors' cash flows may be adversely impacted.

Consequently, customers may modify or decrease their usage of our services and products or fail to pay the outstanding balances on their accounts, and vendors may significantly increase their prices, eliminate vendor financing, reduce their output or fail to supply equipment, subscriber devices and services on a timely basis.

We may also experience increases in accounts receivable and bad debt among corporate subscribers, some of whom may face liquidity problems and potential bankruptcy, as well as the potential bankruptcy of our corporate partners. The deterioration of economies in the countries of our operation may lead, *inter alia*, to insolvency of financial institutions, which in turn may impact our business and financial condition.

A decline in subscriber usage, an increase in bad debts, material changes in equipment pricing or financing terms or the potential bankruptcy of our corporate subscribers or partners may have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, a further deterioration in macroeconomic conditions could require us to reassess the value of goodwill on certain of our assets, recorded as a difference between the fair value of the assets of business acquired and its purchase price. This goodwill is subject to impairment tests on an ongoing 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. Future write-downs relating to the value of the goodwill or portion of such value could have a material adverse effect on our financial condition and results of operations.

Continued turmoil in the credit markets could cause our business, financial condition, results of operations and the value of our shares and ADSs to suffer.

Sanctions introduced by the United States and the European Union with respect to the Russian Federation coupled with an economic downturn and decline in global oil prices caused a significant capital outflow, ruble depreciation, a rise of credit rates in the domestic market and a lack of available financing.

For example, certain Russian banks have in the past experienced difficulties that have caused them to become insolvent and have their licenses revoked, such as 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.

During the period from 2016 and 2017 the cost of funding was decreasing, as the Central Bank of Russia periodically cut the key rate. However, in 2018, the rate cut cycle ended taking into account the dynamics of inflation and inflation expectations, as well as risks posed by external conditions and the reaction of financial markets. In September 2018 (for the first time since 2014), the Board of Directors of the Central Bank of Russia decided to raise the key rate by 0.25 p.p. (up to 7.5%). In December 2018, the key rate was further raised up to 7.75%. In June 2019 the Central Bank of Russia has decided to decrease the key rate by 0.25 p.p. (down to 7.5%), and taking into account decrease of inflation rate key rate decrease continued: in July 2019 - down to 7.25%, in September 2019 - down to 7.00%, in October 2019 - down to 6.50%, in December 2019 - down to 6.25% and in February 2020 - down to 6.00%. Should the key rate grow in the future, this may negatively affect the cost of funding. A continuation or repetition of the downturn in the global financial markets as well as a toughening or extension of international sanctions against Russia and the resulting volatility of the trading price of our shares and ADSs may negatively impact our ability to obtain financing on commercially reasonable terms, either domestically or overseas, and could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our inability to generate sufficient free cash flow to satisfy our debt service obligations or to refinance debt on commercially reasonable terms, could materially adversely affect our business, financial condition, results of operations and prospects.

We have an amount of outstanding indebtedness, primarily consisting of the obligations we entered into in connection with our notes and bank loans. For information about our debt and finance cost, see “Item 5—Operating and Financial Review and Prospects—A. Operating Results.”

Our ability to service, repay and refinance our indebtedness and to fund planned capital expenditure will depend on our ability to generate cash in the future. This, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. If we are unable to generate sufficient cash flow or otherwise obtain funds necessary to make required payments, we may default under the terms of our financial indebtedness, and the holders of our indebtedness would be able to accelerate the maturity of such indebtedness, potentially causing cross-defaults under and acceleration of our other indebtedness. The existing debt servicing is becoming more difficult due to our dependence on floating interest rates in the financial markets.

We may not be able to generate sufficient cash flow or access domestic or international capital markets, or incur additional loans to enable us to service or repay our indebtedness or to fund our other liquidity needs. We may be required to refinance all or a portion of our indebtedness on or before maturity for a number of reasons. For example, the terms of some of our loan agreements may require us to prepay the loan in certain circumstances, such as a deterioration in our credit rating, a delisting of our shares or a drop in our retained earnings below a certain level. This, in turn, may force us to sell assets, reduce or delay capital expenditure or seek additional capital. Refinancing or additional financing may not be available on commercially reasonable terms or at all, and we may not be able to sell our assets or, if sold, the proceeds therefrom may not be sufficient to meet our debt service obligations. Our inability to generate sufficient cash flow to satisfy our debt service obligations, or to refinance debt on commercially reasonable terms, would materially adversely affect our business, financial condition, results of operations and prospects. See “Item 5—Operating and Financial Review and Prospects—B. Liquidity and Capital Resources.”

Ruble volatility and regulatory changes in foreign currency regulation could increase our costs, decrease our available funds or make it more difficult for us to comply with financial covenants and to repay our debts and would affect the value of dividends received by holders of ADSs.

The ruble has weakened significantly against the U.S. dollar during the period of 2014 to 2016, which can be explained by external geopolitical factors, limited financial markets, decrease in oil prices, international ratings agencies' downgrades of Russia's sovereign rating, reduction in internal consumption and other factors.

For example, on December 31, 2014, the official exchange rate published by the CBR was 56.26 rubles per U.S. dollar. The ruble continued to depreciate against the U.S. dollar reaching 72.88 rubles per one U.S. dollar on December 31, 2015, whereas on December 31, 2016, it amounted to 60.66 rubles per one U.S. dollar. On December 31, 2017, ruble amounted to 57.60 per one U.S. dollar. The ruble remained under pressure in 2018, against the backdrop of geopolitical tensions as well as investors outflow from the emerging markets. As of December 31, 2018, ruble amounted to 69.47 per one U.S. dollar. As of December 31, 2019, ruble amounted to 61.91 per one U.S. dollar. The ruble suffered steep drop in the beginning of 2020 from 61.91 rubles per U.S. dollar as at January 1, 2020 to 80.88 rubles per U.S. dollar as at March 24, 2020 as a result of an outbreak of novel coronavirus (COVID-19) and drop in oil prices with Brent Crude oil price reaching a low of \$22.76 per barrel on March 30, 2020. See also “—Fluctuations in the global economy may materially adversely affect the economies of the countries where we operate and our business in these countries.”

See also “—Changes in the exchange rate of local currencies in the countries where we operate against the Russian ruble, as well as changes in the exchange rate of the Russian ruble and local currencies against the U.S. dollar and/or euro could adversely impact our financial results.”

The stability of the ruble will depend on many political and economic factors. These include the ability of the government to finance the deficit of the state budget without recourse to monetary emissions and to control the level of interest rates and inflation. Furthermore, changes in foreign currency regulation may affect our ability to fund payments denominated in foreign currency and result in us entering into supplementary agreements with our foreign counterparts.

A significant portion of our capital expenditure and liabilities and borrowings are either denominated in or tightly linked to the U.S. dollar. Conversely, a majority of our revenues are denominated in rubles. As a result, devaluation of the ruble against the U.S. dollar can adversely affect us by increasing our costs in rubles, both in absolute terms and relative to our revenues, and make it more difficult to comply with the financial ratios contained in our various loan agreements or fund cash payments on our indebtedness on time. It also reduces the U.S. dollar value of tax savings arising from tax incentives for capital investment and the depreciation of our property, plant and equipment, since their basis for tax purposes is denominated in rubles at the time of the investment. Increased tax liability would also increase total expenses, which would have an adverse impact on our results.

We also anticipate that any dividends we may pay in the future on the shares represented by the ADSs will be declared and paid to the depositary in rubles and will be converted into U.S. dollars by the depositary and distributed to holders of the ADSs. Accordingly, the value of dividends received by holders of ADSs will be subject to fluctuations in the exchange rate between the ruble and the U.S. dollar. Any further depreciation of the ruble against the U.S. dollar could therefore materially adversely affect our financial condition, results of operations and prospects and the value of our ADSs. See also “Item 11—Quantitative and Qualitative Disclosures about Market Risk—Foreign Currency Risk.”

Changes in the exchange rate of local currencies in the countries where we operate against the Russian ruble, as well as changes in the exchange rate of the Russian ruble and local currencies against the U.S. dollar and/or euro could adversely impact our financial results.

A significant portion of our expenditure and liabilities, including capital expenditure and borrowings (including our U.S. dollar denominated notes), are either denominated in, or closely linked to, the U.S. dollar and/or euro, while substantially all of our revenues are denominated in local currencies of the countries where we operate. If the local currencies of the countries where we operate decline against the U.S. dollar and/or euro and our costs increase so that we cannot keep pace, we could have difficulty repaying or refinancing our U.S. dollar and/or euro-denominated indebtedness, including our U.S. dollar denominated notes. At the same time, the devaluation of local currencies against the Russian ruble can adversely affect our revenues reported in Russian rubles and increase our costs in terms of local currencies. In addition, local regulatory restrictions on the purchase of hard currency in the majority of countries where we operate may delay our ability to purchase equipment and services necessary for network expansion which, in turn, may cause difficulty in expanding our subscriber base in those countries. Further, a portion of our cash balances is held in jurisdictions outside Russia, and as a result of currency exchange controls in those jurisdictions, these cash balances may not always be readily available for our use.

The Belarusian ruble depreciated against the U.S. dollar, whereby the exchange rate increased from 11,850 Belarusian rubles per one U.S. dollar on December 31, 2014, to 18,569 Belarusian rubles per one U.S. dollar on December 31, 2015. On July 1, 2016, Belarus redenominated its currency on a scale of 10,000:1. As of December 31, 2017, the official exchange rate published by the National Bank of the Republic of Belarus amounted to 1.97 Belarusian rubles per one U.S. dollar. As of December 31, 2018 and December 31, 2019, the official exchange rate published by the National Bank of the Republic of Belarus amounted to 2.16 and 2.10 Belarusian rubles per one U.S. dollar, respectively. The possible devaluation of the Belarusian ruble in the future may adversely affect our revenues from this market.

See also “—Inflation could increase our costs and adversely affect our results of operations” and “Item 11—Quantitative and Qualitative Disclosures about Market Risk—Foreign Currency Risk.”

If we are unable to obtain adequate capital, we may have to limit our operations substantially, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

We have to make significant capital expenditure, particularly in connection with the development, construction and maintenance of, and the purchasing of necessary software for, our mobile and fixed-line networks. For information about our capital expenditures, see “Item 4—Information on Our Company—A. History and Development—Capital Expenditures.” Further, the acquisition of 3G and 4G licenses and frequency allocations and the build-out of our 3G, 4G and broadband Internet networks will require additional capital expenditure.

However, future financings and cash flow from our operations may not be sufficient to meet our planned needs in the event of various unanticipated potential developments, including the following:

- a lack of external financing sources;
- changes in the terms of existing financing arrangements;
- construction of the wireless networks at a faster rate or higher capital cost than anticipated;
- pursuit of new business opportunities or investing in existing businesses that require significant investment;
- acquisitions or development of any additional wireless licenses;

- slower than anticipated subscriber growth;
- slower than anticipated revenue growth;
- regulatory developments;
- changes in existing interconnect arrangements; or
- a deterioration in the economies of the countries where we operate.

During the period from 2014 to 2019, the United States and the European Union announced sanctions applying to a number of Russian and Ukrainian individuals and associated institutions. The sanctions may be extended and our ability to gain external funding may be affected. See also “—Political and Social Risks—A deterioration in relations between Russia and other former Soviet republics, as well as other politically related disagreements and allegations between Russia and other countries and sanctions imposed as a result thereof, could materially adversely affect our business, financial condition, results of operations, prospects and the value of our shares and ADSs.”

Our indebtedness and the limits imposed by covenants in our debt obligations could limit our ability to obtain additional financing and thereby constrain our ability to invest in our business and place us at a possible competitive disadvantage. In addition, we are currently unable to raise equity financing through newly issued depositary receipts, such as ADSs, due to Russian securities regulations providing that no more than 25% of a Russian company’s shares may be circulated abroad through sponsored depositary receipt programs. Prior to December 31, 2005 and at the time of our initial public offering, this threshold was 40% and our current ADSs program is near its full capacity. If we cannot obtain adequate funds to satisfy our capital requirements, we may need to limit our operations significantly, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Inflation could increase our costs and adversely affect our results of operations.

The Russian economy has been characterized by high rates of inflation, which over the past few years have been mainly driven by weakening of national currencies, restrictions on foreign trade and acceleration in food prices.

In 2014, the Bank of Russia implemented an inflation targeting program. As a result of this, inflation in Russia amounted to 5.4% in 2016, which was significantly lower as compared to 12.9% in 2015, according to the Federal Statistics Service. In 2017, inflation decreased to lower than 3% as compared to the target level of 4%. By the end of 2017, consumer inflation reached its historically lowest level of 2.5% year-to-year. In 2018, consumer inflation in Russia amounted to 4.3%. According to the Bank of Russia, in December 2019 the end-of-year growth rate of consumer price index was 3% compared to December of 2018. The Bank of Russia plans to maintain inflation at the 4% target level in the long-term. To achieve this target, the Bank of Russia will more likely change main parameters of monetary policy. However, despite its plans to maintain inflation at the target level, there are risks of inflation increase due to the following factors:

- possible unfreezing of monopolies’ tariffs. During last 10 years tariffs of infrastructure monopolies significantly affected inflation parameters, and contributed more than 40% to the total price volatility in certain years;
- import of inflation due to exchange rate of the Russian ruble. Cumulative effect of domestic prices change in response to change of exchange rate of the Russian ruble is defined as an effect of transferring dynamics of an exchange rate to prices, it has been salient during ruble depreciation in 2014 and 2015; and

- low monetization of the Russian economy. The degree of monetization of the Russian economy is lower than in developed countries and in countries of the Eastern Europe. Attempts to increase the monetization of the Russian economy by raising money supply will likely lead to an increase in inflation due to the lack of confidence on the part of residents and non-residents in the Russian banking system.

In addition, a further decline in global oil prices coupled with capital outflow from growing markets and depreciation of national currencies might cause a rise in inflation. High inflation levels may lead, *inter alia*, to increased marketing expenditure that could, in turn, affect our operating margins and profitability.

At the end of 2018 and 2019, inflation in Belarus amounted to 5.6% and 4.7%, respectively. In December 2018 and December 2019, the annual rise of consumer prices published by the National Bank of the Republic of Belarus amounted to 4.7%.

High rates of inflation in Russia and other countries of our operation could increase our costs and decrease our operating margins. See also “Item 5—Operating and Financial Review and Prospects—A. Operating Results—Certain Factors Affecting our Financial Position and Results of Operations—Inflation.”

See also “—Changes in the exchange rate of local currencies in the countries where we operate against the Russian ruble, as well as changes in the exchange rate of the Russian ruble and local currencies against the U.S. dollar and/or euro could adversely impact our financial results” and “Item 11—Quantitative and Qualitative Disclosures about Market Risk—Foreign Currency Risk.”

Indentures relating to some of our notes contain, and some of our loan agreements and Sistema’s loan agreements contain, restrictive covenants, which limit our ability to incur debt and to engage in various activities.

Covenants in the agreement relating to our Eurobonds due 2023 limit our ability to create liens on our properties, merge or consolidate with another person or convey our properties and assets to another person. Additionally, the indentures governing our U.S. dollar-denominated notes due 2020 contain covenants limiting our ability to incur debt, create liens on our properties, enter into sale and lease-back transactions, merge or consolidate with another person or convey our properties and assets to another person, as well as our ability to sell or transfer any of our or our subsidiaries’ GSM licenses for the Moscow, St. Petersburg and Krasnodar license areas. Some of our loan agreements contain similar and other covenants, including, in relation to the incurrence of indebtedness, creation of liens and disposal of assets. We may also incur additional credit obligations providing for similar covenants. Failure to comply with these covenants may cause a default and result in the debt becoming immediately due and payable, which would materially adversely affect our business, financial condition and results of operations.

In addition, Sistema, which owns a controlling stake in MTS and consolidates our results in its financial statements, is subject to various covenants in its credit facilities. These covenants impose restrictions on Sistema and its restricted subsidiaries (including us) with respect to, *inter alia*, incurrence of indebtedness, creation of liens and disposal of assets. In its indentures, Sistema undertakes that it will not, and will not permit its restricted subsidiaries (including us) to, incur indebtedness unless a certain indebtedness level / EBITDA ratio is met. In addition to us, Sistema has various other businesses that require capital and, therefore, the consolidated Sistema group's capacity to incur indebtedness otherwise available to us could be diverted to its other businesses. Sistema may also enter into other agreements in the future that may further restrict it and its subsidiaries (including us) from engaging in these and other activities. We expect Sistema to exercise control over us in order for Sistema, as a consolidated group, to meet its obligations under its current and future financings and other agreements, which could materially limit our ability to obtain additional financing required for the implementation of our business strategy. The inability to implement our business strategy may have a material adverse effect on our financial condition and results of operations.

A change in control could have a material adverse effect on our financial condition and results of operations.

Under the terms of our outstanding notes, if a change in control occurs, our noteholders will have the right to require us to redeem notes not previously called for redemption. The price we will be required to pay upon such event will be 101% of the principal amount of the notes, plus interest accrued prior to the redemption date. A change in control will be deemed to have occurred in any of the following circumstances:

- with respect to the notes due 2020, any person acquires beneficial or legal ownership of, or control over, more than 50% of our issued shares, ownership of or control over more than 50% of the voting interests in our share capital or obtains the power to elect not less than half of our directors, provided that the following transactions would not be deemed to result in a change of control:
- any acquisition by Sistema or its subsidiaries that results in the 50% threshold being exceeded;
- any acquisition by us, our subsidiary or our employee benefit plan; and
- a contribution by Sistema of all or part of its ownership interest in us into a partnership, joint venture or other indirect holding vehicle as long as any other person who is an owner of or party interested in that partnership, joint venture or other indirect holding vehicle does not acquire beneficial ownership of or control over more than 50% of our issued shares, does not acquire ownership of or control over more than 50% of the voting interests in our share capital and does not obtain the power to elect not less than half of our directors.

Some of our loan agreements contain similar change of control provisions. If a change in control occurs, and our noteholders and other debt holders exercise their right to require us to redeem all of their notes or debt, such event could have a material adverse effect on our financial condition and results of operations.

In addition, under certain of our debt agreements, an event of default may be deemed to have occurred and/or we may be required to make a prepayment if Sistema disposes of its stake in our company and a third party takes a controlling position in our company. The occurrence of any such event of default or failure to make any required prepayment, which leads to an event of default, could trigger cross default / cross acceleration provisions under certain of our other debt agreements. In such event, our obligations under one or more of these agreements could become immediately due and payable, which would have a material adverse effect on our business and our shareholders' equity. If Sistema were to dispose of its stake in us, our company may be deprived of the benefits and resources that it derives from Sistema, which could harm our business.

Risks Relating to Economic Risks in Our Countries of Operation

Economic instability in the countries where we operate could adversely affect our business.

Since the dissolution of the Soviet Union in 1991, the economies of Russia and other countries where we operate have experienced periods of considerable instability. For example, GDP level significantly impacted basic commodity prices as was detected during the crisis in 2008 and 2009.

In 2016, the decline in the GDP of Russia was 0.2%, compared to 3.7% in 2015, according to the Federal State Statistics Service. In 2017, the GDP growth amounted to 1.8%, according to the Federal State Statistics Service. The Federal State Statistics Service estimated that the Russian economy grew by 2.5% in 2018 and by 1.3% in 2019.

Any future economic downturns in Russia or the other countries where we operate, could lead to a decrease in demand for our services and, consequently, in our revenues, and negatively affect our liquidity position and ability to obtain further debt financing, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

The Russian banking system remains underdeveloped, the number of creditworthy banks in Russia is limited and another banking crisis could place severe liquidity constraints on our business.

Russia's banking and financial services systems are less developed or regulated as compared to other countries, and Russian legislation relating to banks and bank accounts is subject to varying interpretations and inconsistent application. The August 1998 financial crisis resulted in the bankruptcy and liquidation of many Russian banks and almost entirely eliminated the developing market for commercial bank loans at that time. Many Russian banks currently do not meet international banking standards, and the transparency of the Russian banking sector in some respects still lags far behind internationally accepted norms. Aided by inadequate supervision by the regulators, certain banks do not follow existing CBR regulations with respect to lending criteria, credit quality, loan loss reserves or diversification of exposure. Furthermore, in Russia, bank deposits made by corporate entities are generally not insured.

In recent years, there has been a rapid increase in lending by Russian banks, which has been accompanied by a deterioration in the credit quality of the borrowers. In addition, a robust domestic corporate debt market is leading Russian banks (including the banks with which we conduct banking transactions) to hold increasingly large amounts of Russian corporate ruble bonds in their portfolios, which is further deteriorating the risk profile of Russian bank assets. The serious deficiencies in the Russian banking sector, combined with the deterioration in the credit portfolios of Russian banks, may result in the banking sector being more susceptible to market downturns or economic slowdowns, including due to Russian corporate defaults that may occur during any such market downturn or economic slowdown. In addition, the CBR has from time to time revoked the licenses of certain Russian banks, which resulted in market rumors about additional bank closures and many depositors withdrawing their savings. Recently, a number of banks and credit institutions have lost their licenses due to the deficiency of capital and failure to meet the CBR requirements. In 2014-2018, for instance, the CBR revoked the licenses of a number of Russian banks for reasons associated with implementing high-risk lending policies, loss of liquidity and non-compliance with anti-money laundering legislation. A combination of these factors may result in a significant deterioration in the financial fundamentals of Russian banks, notably liquidity, asset quality and profitability.

There is currently a limited number of sufficiently creditworthy Russian banks and few ruble denominated financial instruments in which we can invest our excess ruble cash. We hold the bulk of our excess ruble and foreign currency cash in Russian banks, including subsidiaries of foreign banks.

In the event of a banking crisis, Russian companies may be subject to severe liquidity constraints due to the limited supply of domestic savings and the withdrawal of foreign funding sources that may occur during such crisis. Another banking crisis or the bankruptcy or insolvency of the banks from which we receive or with which we hold our funds could result in the loss of our deposits or affect our ability to complete banking transactions in Russia, which could have a material adverse effect on our business, financial condition and results of operations.

The physical infrastructure in Russia and the other countries where we operate is generally in poor condition, which could disrupt our normal business activities and adversely impact our results.

The physical infrastructure in Russia and the other countries where we operate does not always meet modern technical requirements, has not been always funded and maintained over the past years. Particularly affected are the rail and road networks, power generation and transmission systems, communication systems and building stock. For example, in August 2009, a major accident occurred at Russia's largest power plant, the Sayano-Shushenskaya hydroelectric power station, resulting in flooding of the engine and turbine rooms and the death of 75 people. Power generation from the station ceased completely following the incident, which led to a major power outage in the nearby residential areas and at certain industrial facilities as well as pollution of the rivers and soil as a result of an oil spill from the transformer.

In addition, the road conditions throughout our countries of operation may be poor with many roads not meeting minimum quality standards, causing disruptions and delays in the transportation of goods to and within these countries. The governments of the countries where we operate are actively considering plans to reorganize their national rail, electricity and communications systems. Any such reorganization may result in increased charges and tariffs while failing to generate the anticipated capital investment needed to repair, maintain and improve these systems. The deterioration or insufficient renewal of the physical infrastructure in the countries where we operate harms the national economies, adds costs to doing business in these countries and impedes companies to operate effectively. These difficulties can impact us directly; for example, we keep portable electrical generators to help us maintain base station operations in the event of power outages. Further deterioration of the physical infrastructure in Russia and the other countries where we operate could have a material adverse effect on our business, financial condition and results of operations. In addition, the increased charges and tariffs that may result from the government reorganization may also have a material adverse effect on our business, financial condition and results of operations.

Fluctuations in the global economy may materially adversely affect the economies of the countries where we operate and our business in these countries.

The economies of the countries where we operate are vulnerable to market downturns and economic slowdowns elsewhere in the world. 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 Russia and the other countries where we operate, and businesses in these countries could consequently face severe liquidity constraints. Additionally, as Russia produces and exports large amounts of oil and gas, the Russian economy is especially vulnerable to the price of oil and gas on the world market and a decline in the price of oil and gas could negatively impact its economy. Recent military conflicts and international terrorist activity have significantly impacted the oil and gas prices globally, and pose additional risks to the Russian economy. Russia is also a major producer and exporter of metal products and its economy is vulnerable to world commodity prices and the imposition of tariffs and/or anti-dumping measures by the United States, the European Union or other principal export markets.

Although our results have not been materially affected by a pandemic to date, if a regional or global health pandemic were to occur, depending upon its duration and severity, our business could be materially affected. For example, a novel strain of the coronavirus (COVID-19), which was discovered in Wuhan, China in December 2019 and on March 11, 2020, was declared by the World Health Organization to be a global pandemic, has negatively impacted the global economy, disrupted global supply chains and created significant volatility and disruption of financial markets. A global or regional health pandemic could adversely affect the economies and financial markets of many countries, including the countries in which we operate, resulting in an economic downturn that could affect our operating results. Specifically, the novel coronavirus pandemic may lead to a global economic downturn, and can affect customer spending habits, which could lead to a decreased demand in our products and services. In particular, travel restrictions imposed by a number of countries and voluntarily travel limitation may also lead to a decrease in roaming services provided and our roaming revenue from our subscribers. Given the high uncertainties associated with the novel coronavirus, it is difficult to predict its potential effects on our business and it may have a negative impact on our business, financial condition and results of operations.

The disruptions recently experienced in the domestic and international capital markets have led to reduced liquidity and increased credit risk premiums for certain market participants and have resulted in a reduction of available financing. Companies located in emerging markets, including us, may be particularly susceptible to these disruptions and reductions in the availability of credit or increases in financing costs. To the extent that the current market downturn continues or worsens, it may lead to constraints on our liquidity and ability to obtain debt financing, which may have a material adverse effect on our business, financial conditions and results of operations.

Political and Social Risks

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

The political and economic situation in Russia has been negatively affected by the global financial crisis, the economic sanctions imposed by the United States and the European Union and the ongoing volatile economic conditions. Other countries where we operate may pose similar challenges. Current and possible future political changes in Russia and other countries where we operate, major policy shifts or a lack of consensus between the various branches of power and powerful economic groups could disrupt or reverse economic and regulatory reforms. This could, in turn, lead to further political instability or conflicts among powerful economic groups, which could have a material adverse effect on our business, financial condition, results of operations, prospects and the value of our shares and ADSs. A deterioration of the socio-political situation in Russia could also trigger an event of default under some of our loan agreements.

In January 2020, the current Russian President Vladimir Putin proposed a number of constitutional reforms aimed at altering the balance of power between the legislative, executive and judicial branches and introducing certain other changes to the Constitution of the Russian Federation. These draft amendments to the Constitution of the Russian Federation propose, among other things, to prioritize the Constitution of the Russian Federation over international treaties and the decisions of international bodies, strengthen of the Russian State Council as an advisory board to the Russian President and grant the Russian Federal Council with authority to terminate the powers of the judges of the Constitutional Court of Russia upon the recommendation of the Russian President. When implemented, these amendments may have a significant impact on the Russian political landscape and regulatory environment and lead to other changes that are currently difficult to predict.

Potential conflict between central and regional authorities could create an uncertain operating environment hindering our long-term planning ability.

The Russian Federation is a federation of units, consisting of republics, territories, regions, cities of federal importance and autonomous regions and districts. The delineation of authority and jurisdiction among the members of the Russian Federation and the federal government is, in many instances, unclear and remains contested. A lack of consensus between the federal government and local or regional authorities could result in the enactment of conflicting legislation at various levels and may lead to political instability. In particular, conflicting laws have been enacted in the areas of privatization, land legislation and licensing. Some of these laws, as well as governmental and administrative decisions implementing them and certain transactions consummated pursuant to them, have in the past been challenged in the courts, and such challenges may occur in the future. This lack of consensus may hinder our long-term planning efforts and create uncertainties in our operating environment, both of which may prevent us from effectively and efficiently implementing our business strategy.

Additionally, ethnic, religious, historical and other divisions have, on occasion, given rise to tensions and, in certain cases, military conflict, which can halt normal economic activity and disrupt the economies of neighboring regions. The further intensification of violence, including terrorist attacks and suicide bombings, or its spread to other parts of Russia, could have significant political consequences, including the imposition of a state of emergency in some parts or the whole of Russia. Moreover, any terrorist attacks and the resulting heightened security measures are likely to cause disruptions to domestic commerce and exports from Russia. Any of these factors could materially adversely affect our business and the value of our shares and ADSs.

A deterioration in relations between Russia and other former Soviet republics, as well as other politically related disagreements and allegations between Russia and other countries and sanctions imposed as a result thereof, could materially adversely affect our business, financial condition, results of operations, prospects and the value of our shares and ADSs.

Relations between Russia and certain other former Soviet republics are or have in the past been strained. For example, in August 2008, an armed conflict erupted between Russia and Georgia over the self-appointed republics South Ossetia and Abkhazia, culminating in Russia's recognition of their independence from Georgia. The political and economic relationships between Ukraine and Russia have also been strained in recent years. On March 16, 2014, a referendum in favor of joining the Russian Federation was held in Crimea with the consequent declaration of independence of Crimea from Ukraine and the accession to the Russian Federation by the parliament of Crimea. The armed conflict in Eastern Ukraine that has taken place since April 2014 has destabilized the region. These events have resulted in heightened tensions between Ukraine and the Russian Federation and have strained relationships of the Russian Federation with the United States and the European Union, which may adversely impact our business.

The United States and the European Union have imposed sanctions on certain Russian and Ukrainian persons and entities. No individual or entity within our group has been designated with sanctions introduced by either the United States or the European Union. However, 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 within our group as well as our counterparties, will not be affected by future sanctions designations. There are multiple discussions relating to potential additional sanctions against the Russian Federation, Russian individuals and Russian enterprises, however it is currently unclear at which point, if at all, any of these sanctions could be introduced and what would be the scope of any new sanctions that may be imposed.

Non-compliance with any potential sanctions could result in, among other things, the inability of the relevant group entities to contract with the governmental authorities of the United States or the decision-making and executive bodies of the European Union, or their agencies, potential civil or criminal liability for the sanctioned individuals and entities and their associates under the US and/or EU law, the imposition of significant fines and reputational damage.

Further tensions between Russia and other countries and any escalation of the existing tensions, the imposition of further sanctions, or continued uncertainty regarding the scope thereof, could have a negative effect on the Russian economy, the financial condition of our partners and suppliers, the financial condition of partners and suppliers of our subsidiaries, our ability to conduct trade and financial transactions, our ability to obtain financing on commercially reasonable terms (or at all), and the level and volatility of the trading price of our shares and ADSs. See also “—Risks Relating to our Financial Condition—Changes in the exchange rate of local currencies in the countries where we operate against the Russian ruble, as well as changes in the exchange rate of the Russian ruble and local currencies against the U.S. dollar and/or euro could adversely impact our financial results.”

Crime and corruption could disrupt our ability to conduct our business and thus materially adversely affect our operations.

The political and economic changes in recent years in the countries where we operate have resulted in significant dislocations of authority. In addition, the local and international press have reported high levels of corruption, including the bribing of 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. Additionally, some members of the media in the countries we operate in regularly publish disparaging articles in return for payment. The depredations of organized or other crime or demands of dishonest officials could result in negative publicity, disrupt our ability to conduct our business and could thus materially adversely affect our business, financial condition, results of operations and prospects. Any actions which could result in a negative effect on investor confidence in Russia’s business and legal environment could have a further material adverse effect on the Russian securities market and prices of Russian securities or securities issued or backed by Russian entities, including the shares.

Actions of fraudsters aimed against subscribers cause additional risks for operators. Despite our efforts to detect and prevent fraud, some forms of rendering services (for example, offering payments via external Internet sources) might entail risks of fraudulent charge-offs from subscribers’ personal accounts. Such fraud actions could negatively affect our reputation and lead to an increase in subscriber churn, which could materially adversely affect our business, financial condition, results of operations and prospects.

Social instability could increase support for renewed centralized authority, nationalism or violence and thus materially adversely affect our operations.

The failure of the government and many private enterprises to pay full salaries on a regular basis and the failure of salaries and benefits generally to keep pace with the rapidly increasing cost of living have led in the past, and could lead in the future, to labor and social unrest. Labor and social unrest may have political, social and economic consequences, such as increased support for a renewal of centralized authority; increased nationalism, including restrictions on foreign involvement in the economies of the countries where we have operations; and increased violence. An occurrence of any of the foregoing events could restrict our operations and lead to the loss of revenues, materially adversely affecting our operations.

Legal Risks and Uncertainties

Weaknesses relating to the legal system and legislation in the countries where we operate create an uncertain environment for investment and business activity, which could have a material adverse effect on the value of our shares and ADSs.

Each of the countries we operate in is still developing the legal framework required to support the market economy. The following risk factors relating to these legal systems create uncertainties with respect to the legal and business decisions that we make, many of which do not exist in countries with more developed market economies:

- inconsistencies between and among the constitution, federal and regional laws and subordinate legislation (presidential decrees and governmental, ministerial and local orders, decisions and resolutions) and other acts;
- legislation ambiguities which do not allow to predict how these provisions should be followed and how an authorized body or a court will interpret these provisions;
- the lack of judicial and administrative guidance on interpreting certain legislation as well as conflicting interpretations of supreme general jurisdiction and arbitrazh courts;
- the lack of necessary legislation in the reality of digital economy and rapid developing of new technologies;
- the relative inexperience of judges and courts in interpreting certain aspects of legislation;
- the lack of an independent judiciary;
- a high degree of discretion on the part of governmental authorities, which could result in arbitrary actions such as suspension or termination of our licenses; and
- poorly developed bankruptcy and liquidation procedures and court practice that create possibilities of abuse.

The recent nature of much of the legislation in the CIS countries, the lack of consensus about the scope, content and pace of economic and political reform and the rapid evolution of these legal systems in ways that may not always coincide with market developments place the enforceability and underlying constitutionality of laws in doubt and result in ambiguities, inconsistencies and anomalies. In addition, legislation in these countries often contemplates implementing regulations that have not yet been promulgated, leaving substantial gaps in the regulatory infrastructure. All of these weaknesses could affect our ability to enforce our rights under our licenses and contracts, or to defend ourselves against claims by others. Moreover, it is possible that regulators, judicial authorities or third parties may challenge our internal procedures and bylaws, as well as our compliance with applicable laws, decrees and regulations.

The inability of our subsidiaries in the countries in which we are present to maintain control over their operations and assets may adversely affect our business, financial condition and results of operations.

If we are unable to protect our business entities in the countries in which we operate from the withdrawal or suspension or regulatory scrutiny, this may adversely affect our business, financial condition and results of operations. For example, in June 2012, the authorities of the Republic of Uzbekistan began audits of the financial and operating activities of our wholly owned subsidiary, Uzdurobita. Further various claims for violation of tax, antimonopoly and industry legislation were made against Uzdurobita, which resulted in significant amounts of fines and penalties, revocation of all licenses and suspension of services. Total amount of damages was calculated and determined on the basis of all the aforementioned claims against Uzdurobita and amounted to approximately RUB 18,375 million payable in equal installments over eight months.

Uzdunrobita paid two scheduled installments in November and December 2012 totaling approximately RUB 4,583.4 million. On January 14, 2013, further to its partial payment of the third installment due in January 2013 totaling approximately RUB 481 million and constituting the remaining amount of cash held in its bank accounts, Uzdunrobita filed a petition for voluntary bankruptcy to the Tashkent Economic Court on the grounds of its inability to meet further obligations.

On April 22, 2013, the Tashkent Economic Court declared Uzdunrobita bankrupt and initiated a liquidation process. Uzdunrobita was later liquidated. In 2012, we filed a claim against the Republic of Uzbekistan in the International Center for Settlement of Investment Disputes (“ICSID”), part of the World Bank Group, in Washington, D.C.

On July 31, 2014, we and the Republic of Uzbekistan signed a settlement agreement (the “Settlement Agreement”) and MTS agreed to reenter the Uzbekistan market through a joint enterprise with MTS holding a 50.01% in the charter capital of the joint enterprise, while the remaining 49.99% belongs to a state-owned unitary enterprise established and managed by the State Committee for Communications, Development of Information Systems and Telecommunications Technologies of the Republic of Uzbekistan. The Settlement Agreement is governed by English law and provides for the resolution of any disputes arising out of the Settlement Agreement in the International Court of Arbitration under International Chamber of Commerce in Paris.

On September 24, 2014, in accordance with the Settlement Agreement, the authorities of the Republic of Uzbekistan granted the joint enterprise 2G, 3G and LTE licenses, provided necessary frequencies and numbering capacity, fostered entrance into lease agreements for communication channels and issued all permissions required to the joint enterprise so it could operate and offer full telecommunications services throughout Uzbekistan. The joint enterprise has also received guaranties for investment protection and return of investments in accordance with the laws of the Republic of Uzbekistan.

In November 2014, ICSID discontinued international arbitration proceedings between MTS and the Republic of Uzbekistan following the submission of a joint application by both parties.

On December 1, 2014, the joint enterprise, named UMS, launched sales of SIM cards through its proprietary network of 20 stores and through another 230 independent locations throughout Uzbekistan and started provision of 2G/3G telecommunications services on the entire territory of Uzbekistan. On August 5, 2016, we sold our 50.01% stake in UMS to the State Unitary Enterprise Centre of Radio Communication.

Radio Broadcasting and Television of the Ministry of Development of Information Technologies and Communications of the Republic of Uzbekistan. The loss on disposal of investment in Uzbekistan was recorded in the financial report for the third quarter of 2016.

See also “—Political and Social Risks—A deterioration in relations between Russia and other former Soviet republics, as well as other politically related disagreements and allegations between Russia and other countries and sanctions imposed as a result thereof, could materially adversely affect our business, financial condition, results of operations, prospects and the value of our shares and ADSs.”

An outcome of the proceedings relating to sustaining operations of our subsidiary in Turkmenistan is unpredictable.

In December 2010, the Group suspended its operations in Turkmenistan following notification by the Ministry of Communications of Turkmenistan of a decision to suspend licenses held by BCTI, the Group’s wholly owned subsidiary in Turkmenistan, initially for a period of one month starting from December 21, 2010, and then permanently.

On May 24, 2012, we concluded an agreement with the state-owned telecom operator Turkmentelekom relating to our terms of operations in Turkmenistan, which resulted from negotiations between the Turkmenistan government and ministries. The agreement had a five-year term and could be extended for the following five years, provided certain terms and conditions are satisfied. Under this agreement, we were obliged to pay Turkmentelekom a monthly amount calculated as 30% of our net profit in Turkmenistan based on accounting rules of Turkmenistan.

On July 25, 2012, we, our subsidiary BCTI, the Republic of Turkmenistan, the Ministry of Communications of Turkmenistan, the state-owned company, Turkmentelecom, and a mobile operator, Altyn Asyr, signed a settlement agreement (which included the dismissal of all international lawsuits) concerning the suspension of our operations in Turkmenistan in December 2010.

In August 2012, we restarted our mobile communication network in Turkmenistan and resumed providing services to subscribers who had not canceled their contracts. Since October 1, 2012 we resumed our operations in Turkmenistan entirely and started entering into contracts with new subscribers.

MTS-Turkmenistan was compelled to suspend communication services in Turkmenistan from 00:00 September 29, 2017, due to the actions of the Government of Turkmenistan, the Ministry of Communications of Turkmenistan, the state-owned telecommunications company, Turkmentelekom, and its wholly-owned subsidiary, Altyn Asyr, the state owned mobile operator in Turkmenistan. These actions resulted in the disconnection of international and long-distance zonal communication services and Internet access.

In July 2018 we filed a Request for Arbitration against the Sovereign State of Turkmenistan with the ICSID in order to protect its legal rights and investments in Turkmenistan. The Tribunal for these proceedings was constituted on December 18, 2018 and the Company subsequently filed its Memorial (statement of claim) with ICSID on March 29, 2019. Our total losses are currently estimated to be USD 1.5 billion. Unless resolved to our satisfaction, we intend to vigorously pursue our claims in arbitration and seek all available remedies.

Russian companies can be forced into liquidation on the basis of formal non-compliance with certain legal requirements.

Certain provisions of Russian law may allow government authorities to seek a court order for the liquidation of a Russian legal entity on the basis of its formal non-compliance with certain requirements during formation, reorganization or during its operation.

For example, under Russian corporate law, if the net assets of a Russian joint stock company calculated on the basis of Russian accounting standards are lower than its charter capital as at the end of its third or any subsequent financial year, the company must either decrease its charter capital or be placed in liquidation. If the company fails to comply with these requirements, governmental or local authorities can seek the involuntary liquidation of such company in court, and the company's creditors will have the right to accelerate their claims or demand early performance of the company's obligations as well as demand compensation of any damages.

The existence of negative assets may not accurately reflect the actual ability to pay debts as they fall due. Many Russian companies have negative net assets due to very low historical asset values reflected on their Russian accounting standards balance sheets; however, their solvency, *i.e.*, their ability to pay debts as they fall due, is not otherwise adversely affected by such negative net assets. Some Russian courts, in deciding whether or not to order the liquidation of a company for having negative net assets, have looked beyond the fact that the company failed to fully comply with all applicable legal requirements and have taken into account other factors, such as the financial standing of the company and its ability to meet its tax obligations, as well as the economic and social consequences of its liquidation. Nonetheless, creditors have the right to accelerate claims, and file damages claims, and governmental or local authorities may seek the liquidation of a company with negative net assets.

Courts have, on rare occasions, ordered the involuntary liquidation of a company for having net assets less than the minimum charter capital required by law, even if the company had continued to fulfill its obligations and had net assets in excess of the minimum charter capital at the time of liquidation.

The amount of net assets in accordance with the local accounting standards of some of our subsidiaries is less than the minimum charter capital required by law. Although these subsidiaries continue to meet all of their obligations to creditors, there is a minimal risk of their liquidation while the net assets remain below the minimum legal requirements.

There have also 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 as a basis to seek the liquidation of a legal entity. Weaknesses in the Russian legal system create an uncertain legal environment, which makes the decisions of a Russian court or a governmental authority difficult, if not impossible, to predict. If involuntary liquidation were to occur, such liquidation could lead to significant negative consequences for our group.

Insufficient adherence to the independence and competitiveness of the judicial process, the difficulty of enforcing court decisions and governmental discretion in enforcing claims could prevent us or holders of our securities from obtaining effective redress in a court proceeding.

The judicial bodies in the countries where we operate are not always completely independent or immune from economic and political influences, and are often understaffed and underfunded. Judges and courts are often inexperienced in the area of business, corporate and industry (telecommunications) law. Judicial precedents generally have no binding effect on subsequent decisions, and not all court decisions are readily available to the public or organized in a manner that facilitates understanding. The judicial systems in these countries can also be slow or unjustifiably swift.

Enforcement of court orders can, in practice, be very difficult to achieve. All of these factors make judicial decisions in these countries difficult to predict and effective redress uncertain. Additionally, court claims are often used in furtherance of political and commercial aims or infighting. We may be subject to such claims and may not be able to receive a fair hearing. Additionally, court orders are not always enforced or followed by law enforcement agencies. Furthermore, recognition and enforcement of arbitral awards in countries where we operate is subject to compliance with corresponding rules of civil procedure and applicable laws, and courts in the countries where we operate may interpret applicable regulations in a manner which would result in denial of such recognition and enforcement.

These uncertainties also extend to property rights. For example, during Russia transformation from centrally planned economy to market economy, legislation has been enacted in the country to protect private property against uncompensated expropriation and nationalization.

However, there is a risk that due to the lack of experience in enforcing these provisions and due to political factors, these protections would not be enforced in the event of an attempted expropriation or nationalization. Expropriation or nationalization of any of our entities, their assets or portions thereof, potentially without adequate compensation, would have a material adverse effect on our business, financial condition, results of operations and prospects.

Selective or arbitrary government action could have a material adverse effect on our business, financial condition, results of operations and prospects.

Governmental authorities in the countries where we operate have a high degree of discretion and, at times, act selectively or arbitrarily, without hearing or prior notice, and sometimes in a manner that is inconsistent with legislation or influenced by political or commercial considerations.

Selective or arbitrary governmental actions have reportedly included the denial or withdrawal of licenses, sudden and unexpected tax audits and claims, criminal prosecutions and civil actions. Federal and local government entities have also used ordinary defects in matters surrounding share issuances and registration as pretexts for court claims and other demands to invalidate such issuances and registrations or to void transactions. Moreover, the government also has the power in certain circumstances, by regulation or government acts, to interfere with the performance of, nullify or terminate contracts.

In addition, the Russian tax authorities have brought tax evasion claims relating to Russian companies' use of tax-optimization schemes, and press reports have speculated that these enforcement actions have been selective. Selective or arbitrary government action, if directed at us, could have a material adverse effect on our business, financial condition, results of operations and prospects.

Failure to comply with existing laws and regulations as well as requirements of international and regional standards or to obtain all approvals, authorizations and permits required to transmit television channels or operate telecommunications equipment, or the findings of government inspections or increased governmental regulation of our operations, could result in a disruption in our business and substantial additional compliance costs and sanctions.

Our operations and properties are subject to regulation by various government entities and agencies in connection with obtaining and renewing various licenses, approvals, authorizations and permits, as well as with ongoing compliance with existing laws, regulations and standards. Regulatory authorities exercise considerable discretion in matters of enforcement and interpretation of applicable laws, regulations and standards, the issuance and renewal of licenses, approvals, authorizations and permits and in monitoring licensees' compliance with the terms thereof. Russian authorities have the right to, and frequently do, conduct periodic inspections of our operations and properties throughout the year. Any such future inspections may conclude that we or our subsidiaries have violated laws, decrees or regulations, and we may be unable to refute such conclusions or remedy the violations. See also “—The regulatory environment for telecommunications in Russia and other countries where we operate or may operate in the future is uncertain and subject to political influence or manipulation, which may result in negative and arbitrary regulatory and other decisions against us on the basis of other than legal considerations and in preferential treatment for our competitors.”

Primarily due to delays in the issuance of permits, approvals and authorizations by regulatory authorities, it is frequently not possible to procure all of the permits for each of our base stations or other aspects of our network before we put the base stations into commercial operation or to amend or maintain all of the permits when we make changes to the location or technical specifications of our base stations. At times, there can be a significant number of base stations or other communications facilities and other aspects of our networks for which we do not have final permits to operate and there can be delays in obtaining the final permits, approvals and authorizations for particular base stations or other communications facilities and other aspects of our networks.

We are constantly in the process of registration and re-registration of ownership over certain infrastructure facilities. For example, MGTS carries out measures aimed at registration of ownership rights to the cable line structures (“CLS”). At the same time, MGTS is not insured against the risks of challenging the ownership rights by third parties. MGTS performs legal registration of its ownership rights to minimize the risk. In case of receiving reasonable claims, MGTS reconciles cable line objects to distinguish the ownership rights. MGTS is ready to assert its rights to CLS in court when necessary.

In addition, we may be unable to transmit certain television channels if entities that provide television content to us do not possess the requisite licenses. In case such providers of television content do not obtain the required licenses, or have their existing licenses suspended or terminated, our selection of potential television channels for transmission could be significantly limited. The Federal Law No. 257 “On Amending Federal Law “On Mass Media” and Federal Law “On Communications” dated July 13, 2015 introduced a number of amendments to the national mandatory free television channels list. Requirements on sequence of channels, sound and image quality and signal reception points of national mandatory free television channels were adopted in September 2015. The inability of operators to comply with such requirements may lead to suspension or termination of a license.

Furthermore, we could be subject to fines and other penalties, including forced suspension of our cable network operators’ activity for up to 90 days. In some cases of our service provision (for example, those employing GPON technology) power failures in subscribers’ households may lead to non-compliance with rules regulating local telephony communication services. Any of these consequences could have a material adverse effect on our business, financial condition and results of operations.

On June 1, 2018, Federal Law No. 245 “On Amendments to the Federal Law” On Communications” entered into force and is aimed at further aligning the process of entering into a contract for the provision of mobile radiotelephone communication services without appropriate identification of a subscriber (*i.e.*, a user) of communication services. Operators may be subject to penalties for non-compliance with the Law.

Our failure to comply with existing laws and regulations of the countries where we operate as well as requirements of international and regional standards or to obtain all approvals, authorizations and permits required to operate telecommunications equipment, or the findings of government inspections including the State Labor Inspection Service may result in the imposition of fines or penalties or more severe sanctions including the suspension, amendment or termination of our licenses, approvals, authorizations and permits, or in requirements that we cease certain of our business activities, or in criminal and administrative penalties applicable to our officers.

Moreover, an agreement or transaction entered into in violation of law may be invalidated and/or unwound by a court decision. Any such decisions, requirements or sanctions, or any increase in governmental regulation of our operations, could result in a disruption of our business and substantial additional compliance costs and could materially adversely affect our business, financial condition, results of operations and prospects. In addition, we may assume risks of potential claims from subscribers and regulating authorities regarding former activities of the acquired or merged businesses.

Generally, communication networks are vulnerable to physical or software break-ins, viruses, unauthorized interferences and similar events. Should such events occur with respect to our network elements, we may become subject for additional inspection by the regulatory authorities. Although we obtain all necessary permissions and certificates for the operation of our equipment and provide measures to protect confidential information, our failure to fully comply with all legislation requirements could result in the imposition of fines or penalties, additional government regulations, substantial additional compliance costs, disruption of our business including its suspension or termination, and other adverse effects.

We provide certain common contractual protections to the purchaser under the VF Ukraine Sale Agreement and are subject to certain post-closing obligations.

In December 2019, we sold our telecommunication business in Ukraine under an agreement entered into with Telco Solutions and Investments LLC, as purchaser, an entity affiliated with telecommunication company Bakcell LLC, which is a part of the NEQSOL Holding international group of companies (the “Sale Agreement”), see “Item 4—Information on our Company—A. History and Development” and Note 10 to our audited consolidated financial statements for details of the transaction. We provide certain common contractual protections to the purchaser and are subject to certain post-closing obligations under the Sale Agreement. Further, the Sale Agreement contains a post-completion price adjustment mechanism. Therefore, although we do not anticipate any material price adjustments or other liability under the Sale Agreement, there can be no assurance that any such adjustments or liability will not emerge in the future, in which case it could have an adverse effect on our financial position and results of operations.

The level of development of corporate and securities laws and regulations in Russia could limit our ability to attract future investment.

The regulation and supervision of the securities market, financial intermediaries and issuers are less developed in Russia than, for example, in the United States and Western Europe. Securities laws, including those relating to corporate governance, insider trading, disclosure and reporting requirements, are relatively new, while other laws concerning anti-fraud remain underdeveloped.

In addition, Russian corporate and securities rules and regulations can change rapidly, which may materially adversely affect our ability to conduct capital markets transactions. The regulatory requirements imposed on Russian issuers may lead to delays in the placement of securities and access to capital markets. It may be unclear whether or how regulations, decisions and letters issued by the regulatory authority apply to us. As a result, we may be subject to fines and/or other enforcement measures despite our best efforts at compliance, which could have a material adverse effect on our business, financial condition and results of operations.

Furthermore on July 1, 2016, provisions of the Federal Law No. 210 stipulating the procedure for corporate actions became effective which, *inter alia*, provides for a possibility of remote participation at general meetings of security holders (e-voting) for those shareholders who hold their shares either directly on a share register or through a depositary. These procedures may lead to delays in voting process and inconsistencies and may entail additional risks due to their novelty to the Russian market.

There is insufficient minority shareholder protection in Russia.

Minority shareholder protection under Russian law principally derives from (a) supermajority shareholder approval requirements for certain corporate actions, (b) 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, (c) the ability of a shareholder to sell his shares at a fair price when the control is changed, the company is acquired at a price determined in accordance with the requirements of the current legislation, (d) shareholders' right to challenge decisions of the company's management bodies in certain circumstances, and (e) shareholders' right to challenge transactions which caused company's loss. Companies are also required under Russian law to obtain the approval of disinterested shareholders for certain transactions with interested parties. In practice, enforcement of these protections has not always been effective. Shareholders of some companies have suffered as a result of fraudulent bankruptcies initiated by hostile creditors.

The supermajority shareholder approval requirement is met by a vote of 75% of all voting shares that are present at a shareholders' meeting. Thus, controlling shareholders owning slightly less than 75% of outstanding shares of a company may have a 75% or more voting power if certain minority shareholders are not present at the meeting. In situations where controlling shareholders effectively have 75% or more of the voting power at a shareholders' meeting, they are in a position to approve amendments to the charter of the company or significant transactions including asset transfers, which could be prejudicial to the interests of minority shareholders. It is possible that our controlling shareholder in the future may not operate us and our subsidiaries for the benefit of minority shareholders, and this could have a material adverse effect on the value of our shares and ADSs.

While the Federal Law on Joint Stock Companies provides that shareholders owning not less than 1% of the company's outstanding common stock may bring an action for damages caused to a company by its CEO, member of the Board of Directors or its Management Board and certain other officials acting on behalf of the company, minority shareholders may have difficulties with proving such damages with the court and as a consequence their claims may be denied by the court. In 2009, legislation was adopted which contemplates class action litigation, in 2015 mechanism of class action regarding corporate disputes was introduced and in 2019 this mechanism was updated and specified. Although there have been several disputes in the past few years, Russian courts do not have a clear and consistent approach in regards to class action litigation. In addition, the issue of claims by shareholders against the company to compensate the shareholders for their losses is not clearly regulated by the current legislation.

Accordingly, your ability to pursue legal redress against us may be limited, reducing the protections available to you as a holder of our shares and ADSs.

According to Russian legislation, shareholders/participants of Russian companies have an opportunity to demand either liquidation of a company in a judicial proceeding or exclusion of other shareholder/ participant (except for public joint stock companies) from the company.

According to the amendments to the Civil Code of the Russian Federation, which came into effect on September 1, 2014, shareholders and participants of Russian companies have, *inter alia*, the following rights, which can be executed via judicial proceedings:

- to demand the liquidation of a company in case of failure to achieve a corporate purpose for which it was created, including a case when an operation of a company becomes impossible or is substantially hampered; and

- to demand exclusion of a shareholder or a participant (except for the public joint stock companies, including MTS) whose actions/inactivity either cause significant harm or hampers the company's operations.

In this regard, we cannot rule out the possibility of such claims being filed against us. Should such claims be brought, this may have a negative impact on our business, financial condition and results of operations.

Shareholder liability under Russian legislation could cause us to become liable for both obligations of our subsidiaries and losses of the legal entities in which we have a practical possibility of determining actions.

The Civil Code of the Russian Federation, the Joint Stock Companies Law and the Federal Law "On Limited Liability Companies" generally provide that shareholders in a Russian joint stock company or members of a limited liability company are not liable for the obligations of the 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 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." The effective parent bears joint and several liability for transactions concluded by the effective subsidiary in carrying out its decisions or decisions made with its consent. However, joint and several responsibility of the effective parent is excluded in case of voting of the effective parent on the approval of the transaction at a general shareholders' meeting of the effective subsidiary, as well as the approval of the transaction by the body of the effective parent, if the need for such approval is envisaged in the charter of the effective subsidiary and/or the effective parent. In addition, an effective parent is secondarily liable for an effective subsidiary's debts if an effective subsidiary becomes insolvent or bankrupt resulting from the action or failure to act of an effective parent. This is the case no matter how the effective parent's ability to determine decisions of the effective subsidiary arises.

Accordingly, we could be liable in some cases for debts of our subsidiaries and losses of the legal entities to the extent that we had any power of determining such subsidiaries' actions that caused such losses. This liability could have a material adverse effect on our business, results of operations and financial condition.

Shareholder rights provisions under Russian law could impose additional obligations and costs on us, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Russian law provides that shareholders that vote against or did not participate in voting on certain matters have the right to sell their shares to the company at market value in accordance with Russian law. The decisions that trigger this right to sell shares include:

- decisions with respect to a reorganization;
- the 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 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 our charter in a manner that limits shareholder rights;
- the amendment of our charter in a manner that excludes reference to the entity's public status, approved simultaneously with a decision on applying to the CBR on release from obligation to disclose information under the laws of the Russian Federation on securities; and
- a decision on applying for delisting of shares and convertible securities from a stock exchange.

For example, during 2015-2019 we repurchased MTS ordinary shares, for more details see “Item 16E—Purchases of Equity Securities by the Issuer and Affiliated Purchasers.” Our obligation to purchase shares in these circumstances, which is limited to 10% of the company’s net assets calculated in accordance with 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. Under Russian law, if we are unable to sell the repurchased shares at a price equal to or exceeding the market price within one year of the date of repurchase, we will have to reduce our charter capital accordingly.

The Strategic Foreign Investment Law imposes certain restrictions on us and our existing and potential foreign shareholders, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

On May 7, 2008, the Federal Law “On the Procedure for Foreign Investment in Commercial Organizations of Strategic Importance for the Defense and Security of the State,” or the Strategic Foreign Investment Law, came into force in Russia. This law sets forth certain restrictions relating to foreign investments in Russian companies of “strategic importance.” Among others, companies with a dominant position in the Russian telecommunications market are considered to be strategically important and foreign investments in such companies are subject to regulations and restrictions to these companies set out by the Strategic Foreign Investment Law. For purposes of the Strategic Foreign Investment Law, a mobile telecommunications provider is deemed to be dominant if its market share in the Russian market exceeds 25%, as may be determined by the FAS. In addition, a company may be considered to be strategically important due to our offering of services involving the use of cryptographic technologies.

Starting from the effective date of the Strategic Foreign Investment Law, a foreign investor (including Russian citizens having foreign citizenship according to the amendments which came in force on July 1, 2017) seeking to obtain direct or indirect control over a strategically important company is required to have the respective transaction pre-approved by a special governmental commission on control of foreign investments. On December 6, 2014, the amendments to the Strategic Foreign Investment Law came into effect. The law stipulates that foreign investors are obliged to obtain prior approval of transactions envisaging the acquisition of right of ownership, possession or use of property classified as the fixed production assets of a strategic company and the value of which represents 25% or more of the balance sheet value of the assets of such company as of the last reporting date, according to accounts. In addition, foreign investors are required to notify this authorized governmental body about any transactions undertaken by them resulting in the acquisition of 5% or more of the charter capital of strategically important companies. Within 180 days from the effective date of the Strategic Foreign Investment Law, foreign investors having 5% or more of the charter capital of strategically important companies were required to notify the authorized governmental body about their current shareholding in such companies.

Commencing December 6, 2014, a foreign investor is also obliged to notify the authorized governmental body about the fact of conducting the pre-approved transactions. With effect from July 1, 2017, according to the amendments, offshore companies (and companies under their control) are prohibited from obtaining control over a strategically important company and are obliged to have any acquisition of 25% or more of right of ownership of voting shares pre-approved. According to the amendments that came into force on July 1, 2017, certain sanctions may be imposed in respect of such transactions conducted without notification, for example, a deprivation of the foreign investor of any voting rights at a shareholders’ meeting of strategically important companies through judicial proceedings brought by an authorized governmental body.

As we are classified as a strategically important company, our current and future foreign investors are subject to the notification requirements described above and our current and potential investors may be limited in their ability to acquire a controlling stake in, or otherwise gain control over, us. Such increase in governmental control or limitation on foreign investment could impair the value of your investment and could hinder our access to additional capital.

Regulatory changes in Russia as well as regulatory changes at the international level may have a material adverse effect on our financial condition and results of operations.

Following an amendment to the Federal Law on Communications, which became effective July 1, 2006, fixed-line operators began charging their subscribers for calls to mobile phone users and started to transfer a percentage of the charge to mobile operators terminating such calls. The percentage transferred to mobile operators is established by the regulator and is known as the “settlement rate.”

The Ministry of Communications and Mass Media is considering altering the approach to inter-carrier settlements in Russia and the subsequent lowering of the settlement rate. Any reduction of the settlement rate by the regulator could have a negative impact on our average monthly service revenues per subscriber and margins. In September 2013, the Government commission on telecommunications supported the proposal of the Ministry of Communications and Mass Media to simplify the process of traffic transmission within one sub-federal region, as well as to simplify the process of traffic transmission within the voice and data networks while transmitting voice information within one sub-federal region of the Russian Federation. The exact changes to the current regulations may be significant, including the regulation of interconnect leading to operators’ inability to determine the autonomous pricing of interconnect rates.

In November 2014, the Government of Russia considered a proposal on reconsideration of the interconnect regulation approach submitted by the Ministry of Communications. In December 2018, the Ministry of Communications developed new initiatives relating to the reframing of interaction between operators. It is unclear yet how this proposal may be implemented, however it may potentially lead to a reduction in traffic transmission revenues and margin. The final decision on the implementation of this proposal has not been made yet. The agreement on the conditions of inter-carrier mutual settlements while delivering international communication services in CIS-countries was signed on the CIS Heads of Government Council meeting held in Dushanbe on October 30, 2015 (the “Agreement”). The enforcement of certain provisions of the Agreement may adversely affect our operation in terms of the execution of inter-carrier mutual settlements among CIS-operators. In order to be implemented, the corresponding provisions should be introduced to the Russian legislation. To date, the provisions have not been implemented yet.

In December 2013 and July 2014, the State Commission for Radio frequencies introduced a number of modifications to the conditions of using the frequency band for 3G and 4G. These changes resulted in implementation of the principle of technological neutrality for frequency bands 900 MHz (UMTS and LTE) and 1800 MHz (LTE). The Government Regulation No. 480 dated May 24, 2014, requiring that tenders shall be held mainly in the form of auctions, came into force on June 6, 2014.

These changes may strengthen competition in the market as well as add costs for development of the network infrastructure.

According to Government Regulation No. 1240 dated November 24, 2014, starting from January 1, 2015, federal public bodies were vested with a right to make decisions on using data transmission network of government bodies, which is a part of infrastructure ensuring information and technological interaction with the information systems used for rendering state and municipal electronic services for the purposes of exercising public functions. To date, the single operator of infrastructure of electronic state services is Rostelecom. Adoption of the Regulation may adversely affect our revenues with regard to the B2G market segment due to competitive disadvantage.

With the entry into force of the Treaty on the Eurasian Economic Union (the “EEU”) on January 1, 2015, a supra-national antimonopoly body empowered to control compliance with general competition rules on cross-border markets and to apply antitrust measures was established. Should violations with respect to companies operating on cross-border markets be identified, this might lead both, to imposition of fines in accordance with the legislation of the EEU and adoption of the decisions for compulsory execution.

The amendments introduced to Article 5 of the Federal Law No. 115 “On Combating Legalization (Laundering) of Criminally Gained Income and Financing of Terrorism” dated August 7, 2001, entered into force on March 1, 2015. The list of organizations carrying out cash/other property operations, to whom the law requirements are applied, was expanded according to those amendments. In addition to telecommunications operators entitled to independently render mobile radio telecommunications services, the telecommunications operators occupying “substantial position” in public switched telephone networks entitled to independently provide data transmission services and render services on the basis of contracts with individual subscribers, have been also included in the list. A telecommunications operator which meets the specified criteria is obliged to provide the Federal Financial Monitoring Service with the information on cash/other property operations (that is subject to compulsory control or that seems suspicious while implementing the rules of internal control), as well as to take measures for freezing of cash assets / other property (in case there is an information on its involvement in extremist activities or terrorism). Lack of law enforcement practice may cause difficulties in interpreting the above-mentioned amendments and lead to additional burden for telecommunications operators.

On July 8, 2017, the Federal Law No. 110 “On Amendments to Article 66 of the Federal Law “On Communications” and Article 35 of the Federal Law “On Mass Media” dated June 7, 2017 came into force, which requires operators to transmit warning signals to telecommunications services users or inform them about dangers arisen by threat of occurrence of emergencies or occurrence of emergencies. Expenditure related to the transmission of warning signals is not compensated to operators.

On April 4, 2016, the Ministry of Communications of the Russian Federation adopted the order No. 135 “On the Approval of Requirements for Communication Networks Operation With Respect to the Use of Services Provided by Third Parties.” The order came into force on July 26, 2017.

According to the requirements, a telecommunications operator is obliged (on a quarterly basis) to provide authorities with data on foreign companies and foreign citizens that are engaged to provide works or services related to exploitation and management of its communication network. In addition, a telecommunications operator is obliged to store information concerning all actions on communication facilities executed by servicing staff or third parties engaged in exploitation and management of communication networks both from workplaces and with the use of a remote access.

The Federal Law No. 374 “On the Introduction of Amendments to Certain Legislative Acts of the Russian Federation with Respect to Setting up of Additional Counter-terrorism Measures and Public Security Enforcement” was adopted on July 6, 2016. Pursuant to that law, operators are obliged to store information on the facts of receiving, transferring, delivery and/or processing of voice information and text messages, as well as images, sounds, video- and other messages of telecommunications services users (for a three-year period) and the contents of such communications, including voice data, text messages, pictures, sounds, video or other communications (for up to six months). The requirement relating to the storage of messages contents entered into force on July 1, 2018. The Government regulation “On Rules, Terms and Volume of Voice Information, Text Messages, Images, Sounds, Video- and Other Messages of Telecommunications Services Users to be Stored” was adopted on April 12, 2018 (the “Rules on Storage”). According to this regulation, commencing July 1, 2018, communication operators that render intercity and international communication services (as well as personal radio call services, mobile radio services in a public communication network, mobile radiotelephone and satellite communication services, data transmission services for the purposes of transferring voice information, zonal and local telephone communication services) are required to store voice information and text messages, for a period of six months from the moment of the end of their receipt, transfer, delivery and/or processing. Starting from October 1, 2018, operators that render telematics services, as well as data transmission services (except for data transmission services for the purposes of transferring voice information) are obliged to store telecommunication messages by using data storage technical equipment in the volume of electronic communication messages sent and received by the operator’s subscribers (the actual traffic) during 30 days before the commissioning date of the technical equipment. Moreover, the capacity of the data traffic storage system is required to be increased by 15% annually during 5 years from the date the data storage technical equipment was put into operation. Significant additional costs will be required in order to comply with these requirements.

With effect from October 1, 2019 the Federal Law No. 191 “On Introduction of Changes to Certain Legislative Acts of the Russian Federation” dated July 18, 2019 came into force and assumes important changes to the procedural legislation regarding class actions in Russia. According to the law, consumers have a right to file class action lawsuits with the courts of general jurisdiction. Moreover, the law provides changes relating to class actions in arbitration proceeding, specifically, a “group” is defined as those having common or homogeneous rights. The law is aimed at harmonization of civil and arbitration proceedings as well as boosting the effectiveness of the Arbitration Procedure Code clauses, therefore the changes are generally consistent with the Civil Procedure Code developments. These changes allow mass consumer claims in case the amount of each individual claim is small, but the total amount of all claims is significant, that could additionally motivate to initiate lawsuits, *inter alia*, by using litigation funding (investment) tools. The law expanded the list of persons who can advocate the interests of a group of persons. Claims might be filed by, *inter alia*, Rospotrebnadzor, FAS, Bank of Russia, stakeholders and other persons as well as by a group of consumers, whose interests are suffered as a result of violation of competition legislation. Any class actions filed against us could have a material adverse effect on our business, financial condition and results of operations.

In November 2019, the Federal Law No. 90 “On certain amendments to the Federal Law “On communications” and the Federal Law “On information, information technologies and information protection” dated May 1, 2019 (the “Sovereign Internet Law”) aimed at ensuring stable, secure and integral functioning of the Internet in the territory of the Russian Federation, came into force. Under the Sovereign Internet Law, operators may be required to, *inter alia*, install new equipment on their networks, which could adversely affect the networks’ stability and the quality of provided communication services. The Sovereign Internet Law is broadly drafted, and although the Russian authorities have already adopted material implementing acts, practical issues may require further subordinate legislation to be adopted further clarifying the provisions of the law. Furthermore, additional costs for maintenance and operation of this equipment may be required from the operators.

On January 14, 2019, the Government of the Russian Federation published a list of instructions aimed at encouraging the procurement of telecommunication equipment of Russian origin. According to the document, ministries should prepare proposals by May 1, 2019, relating to an increase in the import customs duty rate to a level of up to 20% with respect to telecommunication equipment. Currently, there can be no certainty as to the form of the implementation of these initiatives; therefore, it is difficult to assess how such changes will affect the company's operations. Should the import customs duty rate increase in respect of the equipment we purchase, this may have a material adverse effect on our financial condition and results of operations.

According to the order of the Ministry of Communications No. 148 dated March 31, 2020, during the period from April 1, 2020 to July 1, 2020, an experiment will be conducted to provide free access to socially significant internet services and web resources. List of significant internet services and web resources includes, amongst other, social networks, news and information agencies web resources, online shops, websites of banks and delivery services. Currently, there is no clarity about the consequences in connection with implementation of this order including possible costs required from operators; there can be no certainty as to the form of free access to socially significant information resources, how it will be implemented in the future and when this initiative will be adopted, however it could potentially have a material adverse effect on our business, financial condition and results of operations.

Currently, the Russian Civil Code is undergoing the process of substantial revisions with new provisions being introduced relating to a number of sectors. At present, the potential interpretation of these amendments by state authorities (including the courts), along with their impact on our activities are unknown.

A roadmap for 2018-2022, for the development of competition in economic sectors of the Russian Federation and the transition of particular sectors from the state of natural monopolies to the competitive market was approved by the Order of the Government of the Russian Federation No. 1697-r dated August 16, 2018. The roadmap provides for the adoption of a number of regulatory legal acts, *inter alia*, in the telecommunication sphere. Currently, it is difficult to assess how such changes and their interpretation by state bodies, particularly by courts, may affect our operation.

Russian companies are obliged to pay various and significant taxes including income tax, VAT, real estate tax, excise tax, payroll tax and others. Along with tax liabilities there are different obligatory non-tax payments. These include payments into Universal Service Fund, which currently amounts to 1.2% of our annual revenue on telecommunications services. Furthermore, potential regulatory changes that may be enacted in the future, such as the introduction of new rules regulating MVNOs, new rules concerning our pricing policy and others, could weaken our competitive position in the mobile telecommunications market. Changes in tax laws and non-tax regulations may lead to the growth of our tax burden and increase of our costs and may, as a result, materially adversely affect our financial condition and results of operations.

The failure of our subsidiaries that are subject to regulations as natural monopolies to comply with the requirements of the Federal Law No. 223 “On Procurement Process,” inter alia, in case of collective tendering can lead to application of certain liability measures with respect to our subsidiaries.

One of our subsidiaries, MGTS, is categorized as a natural monopoly in the Moscow telecommunications market. According to the Federal Law No. 223 “On Procurement Process,” natural monopolies are obliged to conduct the procurement process in accordance with the principles of transparency and non-discrimination and unjustified limitation of competition. If our subsidiaries that are under additional regulations as natural monopolies are found failing to comply with the law on procurement process, *inter alia* in case of collective tendering with us, our subsidiaries can be subject to certain liability measures, according to Russian legislation. See also “—Risks Relating to Our Business—If we are found to have a dominant position in the markets where we operate and are determined to have abused this position, the FAS may be entitled to regulate our subscriber tariffs and impose certain restrictions on our operations.”

Russian and foreign legislation on personal data and information security in information systems and communication networks may turn out to be hard to implement and require significant resources. Inability to comply with the requirements may lead to sanctions.

Communication operator activity in the sphere of information security in the Russian Federation is represented by the following legal acts: Federal laws “On Communication,” “On Information, Information Technologies and Information Protection,” “On Personal Data,” “On Trade Secret,” “On Electronic Signature,” by-laws of the Government, FSTEC, FSS, Ministry of Communication and The Federal Service for Supervision of Communications, Information Technology and Mass Media of the Russian Federation, among others. Main risks, posed by organization of processing and providing security of personal data include the following factors:

- ambiguity of applicability of legislation on communication, personal data, trade secret, etc. to a single object of legal regulation. Data may be simultaneously attributed to different categories of limited access information, which fall under different information security requirements under different sections of the Russian legislation;
- responsibility of personal data operators for the actions of the third parties, processing personal data at the request of personal data operators;
- ambiguity of the criteria for determining personal data protection level during its processing in the information systems (for example, in case undocumented possibilities in system and/or applied software exist), set by Government Decree No. 1119, dated November 1, 2012;
- high level of requirements to the personal data protection;
- significant costs on creation of information protection system and support of protection level;
- necessity to use the means of information protection, which have undergone a special conformity assessment procedure; replacement of the existing means of information protection with the ones, certified by FSTEC and FSS of Russia may require additional costs on certification of the existing means of information protection and later on certificates renewal (because of the limited period of certificates validity);
- in case of failure to comply with requirements for confirmation of licenses for the technical and cryptographic protection activity of confidential information by FSTEC of Russia or FSS of Russia, the company would not be able to provide the corresponding commercial services to the third parties; and

- ambiguity of the requirement of Federal law No. 152 to localize processing of the Russian citizens personal data on the territory of Russia, keeping the possibility of cross-border transfer of this data.

In case of non-compliance with the Russian legislation on information security and personal data protection, the company cannot rule out the possibility of imposing sanctions by the regulatory bodies in the form of fines, confiscation of uncertified means of information protection, suspension of business processes for 90 days as well as suspension or withdrawal of the license, allowing to provide communication services, technical and cryptographic protection of confidential information.

In addition, it is possible that subscribers will file legal claims, seeking to reimburse tangible and moral damage in connection with the violation of the legislation requirements.

With effect from May 25, 2018, the General Data Protection Regulation came into force in the European Union. Our basic business processes and our subsidiaries were audited in order to determine applicability and compliance with the GDPR requirements. In addition, a control mechanism for determination of compliance with the specified requirements was proposed to be established for new business processes (if they are initiated). In case of launching services and products, to which the GDPR will apply, we must ensure these services and products comply with the GDPR requirements.

If the resources required to maintain, develop and implement data protection and information security systems meeting the legislation requirement are greater than expected, or we fail to comply with the data protection laws despite our best efforts to do so, our business, financial condition and results of operations could be materially adversely affected.

In February 2020, the Ministry of Digital Development, Communications and Mass Media of the Russian Federation prepared draft amendments to the Federal Law No. 149-FZ “On Information, Information Technology and Data Protection” dated July 27, 2006 aimed at unifying the approach to big data processing. Currently there is no clarity as to the requirements to the big data processing and when the announced draft law, as well as subordinate legislation, may be adopted, hence we are not able to estimate their potential impact on the Group.

The Russian taxation system is underdeveloped and any imposition of significant additional tax liabilities could have a material adverse effect on our business, financial condition or results of operations.

The discussion below provides general information regarding the Russian tax regime and is not intended to be inclusive of all issues. Investors should seek advice from their own tax advisors as to these tax matters before investing in our shares and ADSs. See also “Item 10—Additional Information—E. Taxation.”

In general, taxes payable by Russian companies are substantial and numerous. These taxes include, among others, corporate income tax, value added tax, property taxes, excise duties, payroll-related taxes and other taxes.

In addition, intercompany dividends are subject to a withholding tax of 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.

The Russian tax authorities may take a more assertive position in their interpretation of the legislation and assessments, and it is possible that transactions and activities that have not been challenged in the past may nonetheless be subject to challenges in the future. The foregoing factors raise the risk of the imposition of arbitrary or onerous taxes on us, which could adversely affect the value of our shares and ADSs.

Current Russian tax legislation is, in general, based upon the formal manner in which transactions are documented, looking to form rather than substance. However, the Russian tax authorities are increasingly taking a “substance and form” approach, which may cause additional tax exposures to arise in the future. Moreover, the Russian Tax Code was amended with direct provisions which prohibit tax benefits, if achieved without real business activities, or the main aim of the transaction was tax benefits. Additional tax exposures could have a material adverse effect on our business, financial condition, results of operations and prospects.

It is expected that Russian tax legislation will become more sophisticated, which may result in the introduction of additional revenue raising measures. Although it is unclear how any new measures would operate, any such introduction may affect our overall tax efficiency and may result in significant additional taxes becoming payable. Additional tax exposures could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition to the usual tax burden imposed on Russian taxpayers, these conditions complicate tax planning and related business decisions. For example, tax laws are unclear with respect to deductibility of certain expenses. This uncertainty could possibly expose us to significant fines and penalties and to enforcement measures, despite our best efforts at compliance, and could result in a greater than expected tax burden.

See also “Item 8—Financial Information—A. Consolidated Statements and Other Financial Information—7. Litigation—Tax Audits and Claims.”

Lack of law enforcement practice of the Russian anti-offshore policy may have adverse impact on our business, financial condition and results of operations.

In the past few years, the Russian Federation like a number of other countries in the world has been actively involved in a discussion of measures against tax evasion by the use of low tax jurisdictions as well as aggressive tax planning structures.

The rules of controlled foreign companies (“CFC”) came into force on January 1, 2015. The rules oblige Russian taxpayers being controlling persons of a foreign company to submit to the tax authorities both standard notifications on participation in CFC and tax declarations in certain cases. Profit generated commencing in 2015, including retained earnings, is subject to taxation in the Russian Federation. The innovations could impose additional tax on the undistributed profits of any foreign entity controlled by us (in proportion to such controlling stake) at the rate of 20%. These innovations caused amendments to the Tax Code providing for liability in case of non-disclosure or incomplete disclosure of information on CFCs and the non-payment or underpayment of relevant tax.

In addition, implementation of new concept of beneficial ownership, with regard to taxation of payment of passive income (dividends, royalty, interest, capital gain), may negatively affect possibility to apply benefits set by the double tax treaties, in case such payments pass through intermediary entities.

This may potentially lead to increase of tax burden with regard to such payments.

On November 4, 2014, the President of the Russian Federation signed the Federal law No. 325 “On Ratification of the Convention on Mutual Administrative Assistance in Tax Matters.” Ratification of this Convention will enable the Russian Federation to receive tax information from all participating countries, which include a number of offshore jurisdictions.

Lack of law enforcement practice may cause difficulties in interpreting the above-mentioned laws by the Russian tax authorities. It is also currently unclear how the enacted laws could affect our counterparties, which may be registered in off shore jurisdictions.

In case the impact of legislative initiatives is significant for some of our counterparties it may also impact our results of operations.

Vaguely drafted Russian transfer pricing rules, and lack of reliable pricing information may impact our business and results of operations.

Russian transfer pricing legislation became effective in the Russian Federation on January 1, 1999.

This legislation allowed the tax authorities to make transfer pricing adjustments and impose additional tax liabilities with respect to all “controlled” transactions, provided that the transaction price differed from the market price by more than 20%. “Controlled” transactions included transactions with related parties, barter transactions, foreign trade transactions and transactions with significant price fluctuations (*i.e.*, if the price with respect to such transactions differs from the prices on similar transactions conducted within a short period of time by more than 20%). Special transfer pricing provisions were established for operations with securities and derivatives. Russian transfer pricing rules were vaguely drafted, generally leaving wide scope for interpretation by Russian tax authorities and courts. There has been very little guidance (although some court practice is available) as to how these rules should be applied. These transfer pricing rules apply with respect to transactions that occurred before January 1, 2012.

New transfer pricing rules became effective on January 1, 2012. The implementation of these new rules should help to align domestic rules with OECD principles. The new rules are expected to considerably toughen the previously effective law by, among other things, effectively shifting the burden of proving market prices from the tax authorities to the taxpayer and obliging the taxpayer to keep specific documentation.

If the Russian tax authorities were to impose significant additional tax liabilities through the introduction of transfer pricing adjustments, they could have a material adverse impact on our business, financial condition and results of operations. The adoption of the new transfer pricing rules may increase the risk of transfer pricing adjustments being made by the tax authorities. In addition to the usual tax risks and tax burden imposed on Russian taxpayers, the uncertainties of the new transfer pricing rules complicate tax planning and related business decisions. It will also require us to ensure compliance with the new transfer pricing documentation requirements proposed in such rules. Uncertainty of the new rules may also require us to expend significant additional time and material resources for implementation of our internal compliance procedures. Tax authorities could impose additional tax liability as well as 40% penalties on the underpaid tax in case the prices or profitability are outside the market range and if the required transfer pricing documentation has not been prepared, which could have a material adverse effect on our results of operations and financial condition.

The regulatory environment for telecommunications in Russia and other countries where we operate or may operate in the future is uncertain and subject to political influence or manipulation, which may result in negative and arbitrary regulatory and other decisions against us on the basis of other than legal considerations and in preferential treatment for our competitors.

We operate in an uncertain regulatory environment. The legal framework with respect to the provision of telecommunications services in Russia and the other countries where we operate or may operate in the future is not well developed, and a number of conflicting laws, decrees and regulations apply to the telecommunications sector.

Moreover, regulation is conducted largely through the issuance of licenses and instructions, and governmental officials have a high degree of discretion. In this environment, political influence or manipulation could be used to affect regulatory, tax and other decisions against us on the basis of other than legal considerations. In addition, some of our competitors may receive preferential treatment from the government, potentially giving them an advantage over us.

We are subject to currency control regulations.

The Currency Control Law provides a framework and establishes general rules within which the government of Russia and the Bank of Russia are authorized to introduce certain measures of currency regulation, in connection with which there may be some uncertainty in the process of our implementation of foreign exchange operations when importing equipment.

The change in the currency regulation may negatively affect our performance of obligations under contracts previously concluded with Russian and foreign counterparties, requiring us to make payments on them in foreign currency and necessitating the conclusion of additional agreements in relation to the relevant contracts. As a result, we are exposed to the risks of changes in the currency regulation and foreign exchange control in Russia.

The regulation of critical information infrastructure in the Russian Federation may lead to additional costs which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Federal Law No. 187 “On the Security of the Critical Information Infrastructure of the Russian Federation” which came into force on January 1, 2018 (the “Law on CII”) provides for the creation of a register of significant critical information infrastructure (CII) objects, to which the communication networks may be assigned (after the classification of CII objects). Both state-owned and non-state-owned organizations are classified as subjects of the CII.

The law envisages criminal penalties imposed on officials owning significant CII objects if the security requirements in respect of such significant CII objects are not met and damage is incurred. CII subjects, including communication operators, are required to, among other things:

- categorize CII objects;
- sent the results of CII objects categorization with the authorized bodies;
- create a security system for significant CII objects and implement measures targeted at significant CII protection and protection of information, belonging to the corresponding category;
- set up and provide the operations of means for attacks search on the communication network with the transfer of management to the authorized body; and
- organize transfer of information about computer incidents on the CII to the authorized body.

The by-laws envisage measures aimed at CII objects protection, which are difficult to implement, especially as regards the implementation of information protection measures that are not provided by such communication standards as 3GPP, ETSI, etc., which may lead to incompliance with the regulatory requirements. The implementation of these requirements will require additional costs to be incurred. New requirements of Federal Service for Technology and Export Control of the Russian Federation and the Ministry of Communications (orders No. 239 and No. 582) restrict remote access to CII objects, which may affect possibility to provide warranty and technical support of communication infrastructure by foreign vendor agents.

Compliance with the requirements of the laws and regulations or introduction of similar regulations may require additional costs to be incurred by us or otherwise negatively affect us and could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks Relating to the Shares and ADSs and the Trading Market

Government regulations may limit the ability of investors to deposit shares into our ADS facility.

The ability of investors to deposit shares into our ADS facility may be affected by current or future governmental regulations. For example, under Russian securities regulations, no more than 25% of a Russian company's shares may be circulated abroad through sponsored depositary receipt programs. Prior to December 31, 2005, and at the time of our initial public offering, this threshold was 40%. Although we believe that the new lower threshold does not apply to our ADSs, in the future, we may be required to reduce the size of our ADS program or amend the depositary agreement for the ADSs.

Because our ADS program is regularly at or near capacity, purchasers of our shares may not be able to deposit these shares into our ADS facility, and ADS holders who withdraw the underlying shares from the facility may not be able to re-deposit their shares in the future. As a result, effective arbitrage between our ADSs and our shares may not always be possible. Our shares are listed and traded on the Moscow Exchange. Due to the limited public free float of our common stock, the public market for our shares is significantly less active and liquid than for our ADSs. The cumulative effect of these factors is that our shares may from time to time, and for extended periods of time, trade at a significant discount to our ADSs.

Failure to comply with requirements on the disclosure of certain information on ADSs and ADS holders may restrict your ability to vote.

Pursuant to the Russian securities laws, depositaries, and as a result, ADS holders are not able to vote in connection with the shares underlying ADSs on behalf of the ADS holders unless they provide certain information to the issuer. At a minimum, this information includes the identity of the holder of the ADSs, registration details including a state registration number (for legal entities), and the number of shares attributable to each ADS holder.

Nevertheless, the legislation stipulates that the issuer, CBR, Russian courts and pretrial investigation agencies may request such lists of depositary receipt holders from the holder of depositary program depo account. The holder of depositary program depo account shall take all reasonable measures in order to provide such information. In case of non-compliance with the above requirements, the CBR may suspend, or impose limitations on, transactions with securities held in the relevant accounts of Russian custodians for a period of up to six months. As a result, the shares underlying the ADSs may be blocked and it may be impossible to deposit or withdraw the shares into or from the depositary program. In addition, uncertainties with respect to exercise of certain rights attaching to shares underlying ADS holders could complicate the exercise of right to, and the ability to derive benefits from, the shares represented by ADSs.

The market price of our ADSs has been and may continue to be volatile.

The market price of our ADSs experienced, and may continue to experience, significant volatility.

For information on the closing price of our ADSs on the New York Stock Exchange, see "Item 9—Offer and Listing Details—A.4. Market Price Information."

Numerous factors, including many over which we have no control, may have a significant impact on the market price of our ADSs, including, among other things:

- periods of regional or global macroeconomic instability;
- announcements of technological or competitive developments;
- regulatory developments in our target markets affecting us, our customers or our competitors;

- actual or anticipated fluctuations in our quarterly operating results;
- changes in financial estimates or other material comments by securities analysts relating to us, our competitors or our industry in general;
- the value of local currencies in the markets where we operate compared to the US dollar;
- announcements by other companies in our industry relating to their operations, strategic initiatives, financial condition or financial performance or to our industry in general;
- announcements of acquisitions or consolidations involving industry competitors or industry suppliers;
- sales or perceived sales of additional ordinary shares or ADSs by us or our significant shareholders; and
- impact and development of any investigation or lawsuit, currently pending or threatened, or that may be instituted in the future.

For example, market price of our ADSs experienced volatility in 2017 due to legal proceedings relating to Sistema, initiated by Rosneft, Bashneft and the Ministry of Land and Property Relations of Republic of Bashkortostan, and arrest of 31.76% of shares in our authorized capital held by Sistema, which was lifted as a result of execution of the settlement agreement.

In addition, the stock market in recent years has experienced extreme price and trading volume fluctuations that often have been unrelated or disproportionate to the operating performance of individual companies. These broad market fluctuations may adversely affect the price of our ADSs, regardless of our operating performance.

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

ADS holders will have no direct voting rights with respect to the shares represented by the ADSs.

They are able to exercise voting rights with respect to the shares represented by ADSs only in accordance with the provisions of the deposit agreement 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 involved in communicating with them. For example, the Joint Stock Companies Law and our charter require us to notify shareholders no less than 30 days prior to the date of any meeting and at least 50 days prior to the date of an extraordinary meeting to elect our Board of Directors. Our ordinary shareholders will receive notice directly from us and will be able to exercise their voting rights by either attending the meeting in person or voting by power of attorney.

ADS holders by comparison, will not receive notice directly from us. Rather, in accordance with the deposit agreement, we will provide the notice to the depository. The depository has undertaken, in turn, as soon as practicable thereafter, to mail to ADS holders the notice of such meeting, voting instruction forms 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 instruct the depository how to vote the shares represented by the ADSs they hold. Because of this additional procedural step involving the depository, the process for exercising voting rights may take longer for ADS holders than for holders of the shares and we cannot assure ADS holders that they will receive voting materials in time to enable them to return voting instructions to the depository in a timely manner. ADSs for which the depository does not receive timely voting instructions will not be voted.

Given the above, we cannot provide any assurance that holders and beneficial owners of ADSs will (i) receive notice of shareholder meetings to enable the timely return of voting instructions to the depositary, (ii) receive notice to enable the timely cancellation of ADSs in respect of shareholder actions or (iii) 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.

See also “—Failure to comply with requirements on the disclosure of certain information on ADSs and ADS holders may restrict your ability to vote.”

ADS holders may be unable to repatriate distributions made on the shares and ADSs.

We anticipate that any dividends we may pay in the future on the shares represented by the ADSs will be declared and paid to the depositary in rubles and will be converted into U.S. dollars by the depositary and distributed to holders of ADSs, net of the depositary's fees and expenses. The ability to convert rubles into U.S. dollars is subject to the availability of U.S. dollars in Russia's currency markets.

Although there is an existing, albeit limited by size, market within Russia for the conversion of rubles into U.S. dollars, including the interbank currency exchange and over-the-counter and currency futures markets, the further development of this market is uncertain. At present, there is a limited market for the conversion of rubles into foreign currencies outside of Russia and limited market in which to hedge ruble and ruble-denominated investments.

ADS holders may be subject to Russian regulatory restrictions.

Prior to the amendments to the Russian securities laws introduced in 2011, a depositary bank could be considered the owner of the shares underlying the ADS, and as such could be subject to the mandatory public tender offer rules, anti-monopoly clearance rules, governmental consents or reporting requirements in respect of acquisition of shares and other limitations contemplated by Russian law. The amendments to the Russian securities laws introduced in 2011 provide that a depositary bank is not an owner of underlying shares, and as such, these requirements should apply to ADS holders.

ADS holders may be unable to benefit from the United States—Russia income tax treaty.

Under Russian law, dividends paid to a non-resident holder of the shares generally will be subject to Russian withholding tax at a rate of 15%. The tax burden may be reduced to 5% or 10% under the United States—Russia income tax treaty for eligible U.S. holders; a 5% rate may potentially apply for U.S. holders who are legal entities owning 10% or more of the company's voting shares, and a 10% rate applies to dividends paid to eligible U.S. holders in other cases, including dividend payments to individuals and legal entities owning less than 10% of the company's voting shares. However, according to the recent amendments to the Russian Tax Code, U.S. holders will only be able to utilize the 5% reduced rate through tax reimbursement procedures, as the tax agent is required to use the baseline tax rate established by the code or the applicable tax treaty, whichever is appropriate. See also “Item 10—Additional Information—E. Taxation—Certain Russian Tax Consequences—United States—Russia Income Tax Treaty Procedures.”

The Russian tax rules in relation to ADS holders (that would affect U.S. holders) are characterized by significant uncertainties and limited interpretive guidance. Recent amendments to the tax rules have clarified the status of the ADS holders as beneficial owners of the income from the underlying shares by establishing that the custodian holding the depo account with the shares underlying the ADSs acting as the tax agent and determines amounts of the withholding tax based on the information about the ADS holders and their tax residency status as provided by the program depository. However, the application of the baseline tax rate for ADS holders and any double tax treaty relief is available only if the tax treaty residence of the holder is provided to the custodian along with the other information prescribed by the Tax Code. In relation to ADS holders such information is to be provided by the ADS holders to the depository, who relays it to the custodian, who acts as the tax agent and withholds the taxes when making transferring the dividends to the depository. It is currently unclear how the depository will collect the necessary information from ADS holders. Thus, while a U.S. holder may technically be entitled to benefit from the provisions of the United States—Russia income tax treaty, in practice such relief may be difficult or impossible to obtain. See also “Item 10—Additional Information—E. Taxation” for additional information.

Capital gain from the sale of shares and ADSs may be subject to Russian income tax.

Income received by a foreign company from the sale, exchange or other disposal (assuming that such income is not related to a permanent establishment of a foreign company in Russia) of shares (participation interest) in an organization in which over 50% of the assets consist of immovable property located in Russia, as well as financial instruments derived from such shares, is treated as income derived from a source in the Russian Federation and is subject to withholding tax at a rate of 20%. However, gains arising from the disposition of the securities, which are traded on an organized stock exchange, are not treated as Russian-source income, and should not be subject to taxation in Russia.

The amount of such income is typically determined as the sales price of shares (participation interest). However, if documentary support for the acquisition cost of the shares (participation interest) is available, the tax may instead be assessed on the basis of the difference between the sales price and the acquisition cost (including other related costs) if documentary evidence of such costs is submitted to the tax agent. The Russian Tax Code also establishes special rules for calculating the tax base for the purposes of transactions with securities. However, an exemption applies if immovable property located in Russia constitutes more than 50% of a company’s assets and the securities are traded on a foreign stock exchange. The determination of whether more than 50% of our assets consist of immovable property located in Russia is inherently factual and is made on an on-going basis and the relevant Russian legislation and regulations in this respect are not entirely clear. Hence, there can be no assurance that immovable property owned by us and located in Russia does not currently and will not constitute more than 50% of our assets as at the date of the sale of ADSs by non-residents.

Where the ADSs are sold by legal entities or organizations to persons other than a Russian company or a foreign company or an organization with a registered permanent establishment in Russia, even if the resulting capital gain is considered taxable in Russia, there is currently no mechanism under which the purchaser will be able to withhold the tax and remit it to the Russian budget.

Under the United States / Russia income tax treaty, capital gains from the sale of shares and/or ADSs by eligible U.S. holders should be relieved from taxation in Russia, unless 50% or more of our assets (the term “fixed assets” is used in the Russian version of the treaty) were to consist of immovable property located in Russia.

The taxation of income of non-resident individuals depends on whether this income is received from Russian or non-Russian sources. Russian tax law does not give a definition of how the “source of income” should be determined with respect to the sale of securities, other than that income from the sale of securities, which takes place “in Russia” should be considered as Russian source income. As there is no further definition of what should be considered to be a sale “in Russia,” the Russian tax authorities have a certain amount of freedom to conclude what transactions take place in or outside Russia, including looking at the place of the transaction, the place of the issuer of the shares, the location of the registrar recording the transfer of legal title to the relevant securities or other similar criteria.

Non-residents who are individuals are taxable on Russian-source income. Provided that 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, then such income should not be taxable in Russia. However, gains arising from the disposition of the same securities and derivatives “in Russia” by U.S. holders who are individuals not resident in Russia for tax purposes may be subject to tax either at the source in Russia or based on an annual tax return, which they may be required to submit with the Russian tax authorities. See also “Item 10—Additional Information—E. Taxation.”

Insufficiently developed practice relating to share registration system in Russia may result in improper record ownership of our shares, including the shares underlying the ADSs, and other problems connected with the rights attributed to the relevant shares such as dividend payments.

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, the central registration system in Russia is under development. Since October 1, 2014, share registers of all joint stock companies are maintained by licensed registrars. Regulations were issued regarding the licensing conditions for such registrars, as well as the procedures to be followed by both companies maintaining their own registers and licensed registrars when performing the functions of registrar; however, companies are no longer able to maintain the registers themselves. Nevertheless, in practice registrars tend to have relatively low levels of capitalization and insufficient insurance coverage.

On December 7, 2011, amendments to the relevant legislation were adopted, substantially reforming the registration system by introducing the CSD. In the course of this reform of the share keeping system, numerous different depositories with accounts in the registers of companies were replaced by a single central depository, whose primary function is the custody of shares in all major companies. These changes became effective on January 1, 2012 and are still being implemented. On November 6, 2012, FSFM officially appointed the National Settlement Depository as the central depository. Since the central depository opened its account in MTS’ register in March 2013, all the other custodians are restricted from opening their accounts in the register. Currently the central depository is the only custodian with an account in MTS’ register and other custodians hold custodial accounts with the central depository.

In addition, certain amendments to the Civil Code of the Russian Federation entered into force on October 1, 2013 regarding the transfer and restitution of securities that are aimed at protection of rights of security holders and on September 1, 2014 regarding the regulation of legal entities and their corporate governance. However, we cannot entirely exclude that transactions in respect of a company’s shares could be improperly or inaccurately recorded, and share registration could be lost through fraud, negligence, official and unofficial governmental actions or oversight by registrars incapable of compensating shareholders for their misconduct. This creates risks of loss as well as difficulties relating to dividend payments not normally associated with investments in other securities markets.

Foreign judgments may not be enforceable against us.

Our presence outside the United States may limit your legal recourse against us. We are incorporated under the laws of the Russian Federation. Substantially all of our directors and executive officers named in this document reside outside the United States. All or a substantial portion of our assets and the assets of our officers and directors are located outside the United States. As a result, you may not be able to effect service of process within the United States on us or on our officers and directors. Similarly, you may not be able to obtain or enforce U.S. court judgments against us, our officers and directors, including actions based on the civil liability provisions of the U.S. securities laws.

In addition, it may be difficult for you 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 you of effective legal recourse for claims related to your investment in our shares and ADSs. The deposit agreement provides 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 and corruption.

Other Risks

We have not independently verified information we have sourced from third parties.

We have sourced certain information contained in this document from third parties, including private companies and Russian government agencies, and we have relied on the accuracy of this information without independent verification. The official data published by Russian federal, regional and local governments may be substantially less complete or researched than those of more developed countries. Official statistics may also be produced on different bases than those used in Western countries. Any discussion of matters relating to Russia in this document must, therefore, be subject to uncertainty due to concerns about the completeness or reliability of available official and public information. In addition, the veracity of some official data released by the Russian government may be questionable.

Because no standard definition of an average monthly service revenue per user (“ARPU”), average monthly usage per user (“MOU”) or churn exists in the telecommunications industry, comparisons between certain operating data of different companies may be difficult to draw.

The methodology for calculating subscriber numbers, ARPU, MOU and churn varies substantially in the telecommunications industry, resulting in variances in reported numbers from that which would result from the use of a uniform methodology. Therefore, comparisons of certain operating data between different telecommunications companies may be difficult to draw.

Factors over which we have little or no control may affect our revenues.

Our business activities depend on a number of factors which are outside of our control, including natural disasters, imposition of a state of emergency in the countries of our operations, strikes and global and regional economic conditions. Any of these factors could result in deterioration of our revenues, which could have a material adverse effect on our results of operations, financial condition, prospects and the price of our ADSs.

Item 4. Information on Our Company

A. History and Development

Mobile TeleSystems CJSC (“MTS CJSC”), our predecessor, was formed in 1993. The founding shareholders included MGTS and three other Russian telecommunications companies, which collectively held 53% of our original share capital, and two German companies, Siemens AG and T-Mobile Deutschland GmbH, an affiliate of Deutsche Telekom AG, which collectively held the remaining 47%. Sistema currently owns 44.36% of our share capital (50.03% excluding treasury shares). See “Item 7. Major Shareholders and Related Party Transactions—A. Major Shareholders.”

Our legal name is Mobile TeleSystems Public Joint Stock Company (MTS) and we are incorporated under the laws of the Russian Federation. Our head office is located at 5 Vorontsovskaya Street, Bldg. 2, Moscow 109147, Russian Federation, and the telephone number of our investor relations department is +7 495 223-2025. The address of our incorporation is 4 Marksistskaya Street, Moscow 109147, Russian Federation. We maintain a website at www.ir.mts.ru. The information on our website is not a part of this report. We have appointed Puglisi & Associates, 850 Library Avenue, Suite 204, Newark, Delaware 19711 as our authorized agent for service of process for any suit or proceeding arising out of or relating to our shares, ADSs or the deposit agreement.

Mobile TeleSystems Public Joint Stock Company (MTS PJSC) is the new legal name of Mobile TeleSystems Open Joint Stock Company (MTS OJSC) registered on July 1, 2015 in order to comply with the regulations of Chapter 4 of the Civil Code of Russian Federation (as amended). MTS OJSC was created on March 1, 2000, through the merger of MTS CJSC and RTC CJSC, a wholly owned subsidiary. Our charter was registered with the State Registration Chamber on March 1, 2000, which is our date of incorporation, and with the Moscow Registration Chamber on March 22, 2000. Our initial share issuance was registered by the Russian Federal Commission on the Securities Market on April 28, 2000.

We completed our initial public offering on July 6, 2000, and listed our shares of common stock, represented by ADSs on the New York Stock Exchange (the “NYSE”) under the symbol “MBT.” Each ADS represents two underlying shares of our common stock. Prior to May 3, 2010, each ADS represented five shares of our common stock.

In September 2001, we won a tender held by the Telecommunications Ministry of the Belarus Republic to form a joint venture with a GSM 900/1800 license to operate in Belarus. On June 26, 2002, MTS Belarus received all of the governmental approvals and licenses required to commence operations in Belarus and it began operations on June 27, 2002.

In 2003 through a number of purchases we acquired a 100% stake in MTS Ukraine (now VF Ukraine) for RUB 11,872 million. Starting from 2007 until 2015, we operated under the MTS brand in Ukraine. In 2015, as part of our strategic partnership with Vodafone, we introduced Vodafone brand in Ukraine. In December 2019, our wholly owned subsidiary Allegretto Holding S.a.r.L (Lux) sold its 100% stake in its Dutch subsidiary Preludium B.V., the sole shareholder of VF Ukraine, for total consideration of USD 689 million (RUB 44,386 million) (including fair value of earn-out of USD 44 million). See Note 10 to the consolidated financial statements. This deal is in line with our revamped strategy focused on Russia and aimed to build innovative digital services on top of a strong telecoms foundation.

We started operations in Uzbekistan, following the two step acquisition of 100% ownership interest in Uzdunrobita in 2004 and 2007. In July 2012, we suspended providing services in Uzbekistan per the order from the State Agency for Communications and Information (“SACI”) of Uzbekistan on the temporary suspension of the operating license of Uzdunrobita for a period of 10 business days which was subsequently extended to three months. On April 22, 2013, the Tashkent Economic Court declared Uzdunrobita bankrupt and initiated liquidation procedures. As a result, we lost control over the subsidiary and deconsolidated Uzdunrobita. In July 2014 the disputes between us and Republic of Uzbekistan were resolved. The parties signed the Settlement Agreement and according to its terms all mutual claims were eliminated. Furthermore, a new mobile operator, UMS, was established by governmental authorities of Republic of Uzbekistan. On September 24, 2014, an ownership interest of 50.01% in UMS was transferred to us as an incentive for reentrance into the country by the State Unitary Enterprise “Center of Radio Communications, Radio Broadcasting and Television,” the second shareholder of an operator, on behalf of the Republic of Uzbekistan. We started operations in Uzbekistan in December 2014. On August 5, 2016, we sold our 50.01% stake in UMS to the State Unitary Enterprise “Center of Radio Communications, Radio Broadcasting and Television.”

Please see “Item 3. Key Information—D. Risk Factors—Legal Risks and Uncertainties—The inability of our subsidiaries in the countries in which we are present to maintain control over their operations and assets may adversely affect our business, financial condition and results of operations” regarding recent suspension of our services in Uzbekistan and “Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—7. Litigation—Uzbekistan.”

In two separate purchases in June and November 2005, we acquired 100% of BCTI, the leading wireless operator in Turkmenistan, for \$46.7 million (RUB 1,343 million) in cash. Since October 2006, we have operated under the MTS brand in Turkmenistan. On December 21, 2010, the Ministry of Communication of Turkmenistan suspended our primary operating license and we ceased providing mobile telecommunications services in Turkmenistan. In August 2012, we restarted our mobile communication operations in Turkmenistan via MTS-Turkmenistan and resumed providing services for subscribers who did not cancel their contracts. Since October 1, 2012, we resumed our operations in Turkmenistan entirely and started entering into contracts with new subscribers. On September 29, 2017, we stopped providing communication services in Turkmenistan due to the actions of the state-owned telecommunication company Turkmentelekom, which resulted in the disconnection of international and long-distance zonal communication services and internet access. See “Item 3. Key Information—D. Risk Factors—Legal Risks and Uncertainties—An outcome of the proceedings relating to sustaining operations of our subsidiary in Turkmenistan is unpredictable.”

In September 2007, we acquired an 80% stake in International Cell Holding Ltd., a 100% indirect owner of K-Telecom (now MTS-Armenia), the leading wireless operator in Armenia, for €260.0 million (RUB 9,142 million), and entered into a call and put option agreement initially valid until 2012 (and later extended until 2018) for the remaining 20%. Subsequently International Cell Holding Ltd. was substituted by Aramayo Investments Limited and further liquidated due to corporate restructuring. In August 2019 Allegretto Holdings S.a.r.L (Lux), our 100% subsidiary, that held 80% shares of Aramayo Investments Limited entered into a full and final settlement agreement, under which the value of 20% shares in MTS-Armenia was offset against the amount of loan issued to the minority shareholders and accrued interest (\$99.1 million or RUB 6,618 million). Thus, as a result of the transaction, Allegretto accumulated 100% of indirect ownership over the asset. MTS-Armenia operates in the GSM-900/1800 standard, covering the entire territory of Armenia. It historically operated under the VivaCell brand, and was re-branded as VivaCell-MTS in September 2008.

In October 2009, we acquired a 50.91% stake in Comstar, a leading fixed line operator in Russia, from Sistema, and subsequently increased our ownership interest to 61.97% (or 64.03% excluding treasury shares) in December 2009 and to 70.97% (or 73.33% excluding treasury shares) in September 2010 through a voluntary tender offer. On December 23, 2010, the extraordinary general meetings of shareholders of Comstar and MTS approved a merger, which was completed on April 1, 2011. As a result, Comstar ceased to exist as a separate legal entity and MTS became the legal successor of Comstar in respect of all its rights and obligations.

Prior to April 1, 2011, Comstar operated in both the Moscow and other fixed line communications markets, offering voice telephony, broadband Internet and pay-TV, operator interconnect and other services to its subscribers. As of now we still continue to provide these services. One of Comstar subsidiaries was MGTS, Moscow's incumbent fixed line operator with "last mile" access (the final phase of delivering connectivity from a communications provider to a customer) to approximately 96% of the households in Moscow. In 2011, we completed the re-branding of Comstar with our main MTS brand. MGTS continues to provide services under its own brand.

In 2009, we started to develop our sales and distribution network both organically and through the acquisition of several national and regional retail chains. We organized our retail operations under a wholly owned subsidiary, Russian Telephone Company ("RTC"). RTC handles all functions relating to our retail operations, including the management of points-of-sale, the purchase and sale of handsets and accessories and subscriber enrollment at our retail outlets.

Between 2009 until now we acquired controlling stakes in various regional fixed line operators as we are determined to develop broadband Internet through regional expansion.

In April 2013, we acquired a 25.095% stake in MTS Bank for 5.09 billion rubles through an additional share issuance by the bank. In July 2018, we acquired additional stake in MTS Bank for RUB 8.27 billion from Sistema and our ownership share increased to 55.4%, providing control over the bank. The acquisition allowed us to consolidate MTS business in the Russian FinTech market, simplify corporate and operational management, and accelerate the launch of new products. In February 2019 we acquired a 39.48% stake for RUB 11.4 billion and later in December 2019 we acquired an additional 4.46% stake for RUB 1.4 billion. As a result of these transactions, MTS' effective share in MTS Bank increased to 99.9% (including a 0.2% share in the bank held by our subsidiary MGTS and MTS Bank's ownership of its own treasury shares).

In December 2014, we acquired controlling stakes in Penza-GSM, SMARTS-Ivanovo and SMARTS-Ufa, operating in Penza, Ivanovo and the Bashkortostan Republic, respectively. The acquired companies hold rights to use 900 and 1800 MHz radio frequencies within the regions mentioned. The acquisition enhanced our spectrum resources in the above mentioned regions. The purchase price comprised of cash consideration and a deferred payment, payable in 18 months after the acquisition date. These companies were subsequently merged with MTS.

In April 2014, we acquired a 10.82% stake in OZON, a leading Russian e-commerce company, through the purchase of OZON Holdings Limited's additional share issuance for RUB 2,702 million. Cooperation with OZON created new distribution channels available to us through its extensive online retail platforms. As of December 31, 2017 our interest comprised 11.19% and was further increased to 18.69% as of December 31, 2018. In March 2019, we sold our stake in OZON to Sistema for RUB 7.9 billion. As of December 31, 2019 we had no interest in OZON.

In December 2015, we have completed the acquisition of NVision Group and its subsidiaries for RUB 11.2 billion. Through this transaction, we have obtained proprietary rights over our billing systems which will allow us to reduce the time-to-market for new products and better manage billing and IT-related expenses. NVision Group is a system integrator and complex IT solutions provider in Russia.

In September 2016, we acquired controlling stake in Smarts-Yoshkar-Ola, a company, operating in the Republic of Mari El and holding rights to use 1800 MHz radio frequencies. The acquisition enhanced our spectrum resources in the Republic of Mari El.

In July 2017, we acquired a 100% ownership interest in Bashkortostan Cellular Communication OJSC, a company which operates in the Republic of Bashkortostan and holds rights to use 450 MHz and 2,100 MHz radio frequencies. The acquisition enhanced our spectrum resources in the Republic of Bashkortostan.

In October 2017, we acquired 50.82% of ownership interest in the Russian retail software developer Oblachny Retail LLC, operating under trademark LiteBox, with a call and put option arrangement existing over another 49.18% of shares. The deal allowed us to enter the cloud-based cash register market as a fully licensed fiscal data operator ("FDO") and a provider of integrated digital cash management solutions for B2B clients.

In December 2017, we purchased a 100% stake in Praliss Enterprises, thus acquiring one of the world's leading eSport clubs—Gambit Esports. The acquisition was a part of our 3D strategy.

In January 2018, we acquired a 78.2% stake of Cubichall Holdings Ltd (the owner of Kulturnaya Sluzhba LLC), operating under the trademark Ponominalu.ru, for RUB 321 million. In May 2019 we increased our share following exercise of put option of one of the minority shareholders under option agreement and purchased 667 shares (10.9% stake) of Cubichall Holdings Ltd which allowed us to become the owner of 89.1% in its share capital.

In February 2018, we acquired a 100% ownership interest in Moskovskaia Direktciia Teatralno-Kontcertnyh i Sportivno-Zrelishchnyh Kass LLC, operating under the trademark Ticketland.ru, for RUB 3.19 billion. These acquisitions allowed us to enter the event ticket market, while broadening our suite of digital services, and integrate a key new product into existing loyalty program and mobile applications ecosystem.

In August 2018, we purchased a 99% stake in Progressivniye Technologii CJSC, provider of fixed-line services in the cities of Zhukovskiy and Anapa, which allowed us to strengthen our position in the local markets and benefit from the expected synergies from the acquisition.

In October 2018, we acquired Dekart property complex in full from Sistema. The property complex comprises office facilities, parking premises and engineering networks and is partly occupied by us and partly used as investment property.

In December 2018, we acquired a 100% interest in IT-Grad 1 Cloud LLC, one of the largest cloud providers on the Russian IaaS (Infrastructure as a Service) market. This acquisition allowed the Group to strengthen its presence in the Russian cloud services market.

In December 2018, we acquired Serebryaniy Bor property complex in full from Sistema. The property complex comprises administrative facilities, land and engineering networks and is partly occupied by us and partly designated as investment property. In December 2018, we also acquired Serebryaniy Bor administrative property complex from Sistema.

In April 2019, we acquired from Sistema a 100% interest in Joint Stock Company “United Russian Studios,” a management company of a “Kinopolis” movie studio with its own movies production complex. The acquisition was a part of our 3D strategy.

In June 2019, we acquired a 97.42% stake in JSC “RIKT,” a regional provider of telecommunications services in Mezhdurechensk and Kemerovo Oblast. The acquisition was commenced through the voluntary tender offer procedure under Russian law. Later, in October 2019 we acquired the remaining 2.58% stake in JSC “RIKT” through obligatory squeeze-out procedure set out in Russian law. As a result of both procedures, MTS’ share in JSC “RIKT” increased to 100%. This acquisition allowed the Group to strengthen its presence in the Russian broadband Internet regional market.

In August 2019, we acquired Narodnoje property complex in full from Sistema. The property complex comprises office facilities and hostel premises, and is partly occupied by us and partly used as investment property.

In November 2019, we acquired a 7.5% stake in JUST AI Limited, IT-company specialized in artificial intelligence technologies, machine learning and natural language processing. The acquisition was a part of our CLV 2.0 strategy (as described below).

In December 2019, we acquired a 15.01% stake in SWIPGLOBAL Ltd, IT-company specialized in face recognition payments without using a smartphone or QR code. The acquisition was a part of our CLV 2.0 strategy.

Capital Expenditures

We spent in total RUB 91,736 million in 2019 for network development in Russia and the other countries where we operate, which included RUB 68,465 million in cash expenditures on property, plant and equipment, and RUB 23,271 million for the purchase of intangible assets (including RUB 255 million for acquisition of 4G license in Armenia). We expect to spend up to RUB 90 billion (excluding potential capital expenditures for acquisition of frequency bands licenses) in 2020 on further network expansion, development of broadband Internet, connection of socially significant objects to the network within the won auctions held by The Ministry of Communications and Mass Media (Minkomsvyaz’), special projects relating to the development of big data, b2b digital, media, artificial intelligence products, further construction of radio subsystem and additional storage, processing and indexing centers to comply with requirements of “Yarovaya-Ozerov bundle of laws,” maintenance capital expenditures, construction of new sites and purchase of software for network managing in Armenia and other initiatives. We plan to finance our capital expenditures primarily through operating cash flows, and to the extent necessary, through additional external financing. The actual amount of our capital expenditures for 2020 may vary depending on subscriber growth, demand and network development, as well as currency volatility, vendor terms and the availability of external financing. The capital expenditure estimate for 2020 excludes expenditures that may be made in connection with acquisitions. A breakdown of our capital expenditures in 2019 by country is set forth below.

We spent RUB 2,052 million, 3,444 million and 367 million in 2019, 2018 and 2017, respectively, for acquisitions of subsidiaries, net of cash acquired from third parties. In addition, in 2019, we spent RUB 15,312 million, net of cash acquired, for acquisition of businesses under common control.

Russia

We spent RUB 81,811 million in 2019 for network development in Russia, including RUB 61,269 million in cash expenditures on property, plant and equipment, and RUB 20,542 million for the purchase of intangible assets.

Armenia

We spent RUB 1,759 million in 2019 for network development in Armenia, including RUB 1,055 million in cash expenditures on property, plant and equipment, and RUB 704 million for the purchase of intangible assets (including RUB 255 million for acquisition of 4G license in Armenia).

Belarus

MTS Belarus spent RUB 4,296 million in 2019 for network development, including RUB 2,734 million in cash expenditures on property, plant and equipment, and RUB 1,562 million for the purchase of intangible assets (including RUB 683 million for acquisition of 3G license in Belarus). We do not include the capital expenditures of MTS Belarus in our capital expenditures described above as its results are not consolidated in our financial statements.

B. Business Overview

We are a leading telecommunications provider in Russia and the CIS, providing a wide range of mobile and fixed line voice and data telecommunications services, including data transfer, broadband, pay-TV and various value-added services, including Big Data, IoT, cloud services, banking services, e-commerce, as well as selling equipment, accessories and software. According to AC&M Consulting, we are the largest provider of mobile cellular communications services in Russia. According to our own estimates, we are also the largest provider of mobile cellular communication services in Armenia in terms of mobile subscribers.

As of December 31, 2019, we had a mobile subscriber base of approximately 81.3 million (79.1 million in Russia and 2.2 million in Armenia) which is an increase of 1.4% compared to December 31, 2018. As of December 31, 2018, we had a mobile subscriber base of approximately 80.1 million (approximately 78.0 million in Russia and 2.1 million in Armenia) which is a decrease of 0.3% compared to December 31, 2017. As of December 31, 2017, we had a mobile subscriber base of approximately 80.4 million (approximately 78.3 million in Russia and 2.1 million in Armenia) which is a decrease of 4.0% compared to December 31, 2016.

We are also the largest operator in the Moscow residential broadband market in terms of subscribers, with a 37% market share as of December 31, 2019, based on TMT Consulting data. Our revenues for the year ended December 31, 2019, were RUB 476,106 million, representing 5.5% increase from the year ended December 31, 2018. Our revenues for the year ended December 31, 2018, were RUB 451,466 million, which is an increase of 8.0% from RUB 417,918 million for the year ended December 31, 2017. Our net income for the year ended December 31, 2019, was RUB 55,099 million, which is an increase of 603.5% from the year ended December 31, 2018. Our net income for the year ended December 31, 2018, was RUB 7,832 million, which is a decrease of 48.8% from RUB 56,590 million for the year ended December 31, 2017.

Russia is our principal market, both in terms of subscribers and revenues. For the year ended December 31, 2019 approximately 96% of our revenues came from operations in Russia and approximately 4% of our revenues came from operations in other countries, respectively.

In July 2018 we acquired control over MTS Bank and started rendering banking services. MTS Bank is one of the 50 largest banks in the Russian Federation. MTS Bank was established in the Russian Federation as an open joint stock company in 1993. MTS Bank's primary business consists of commercial activities, trading with securities, foreign currencies and derivative instruments, originating loans and guarantees. MTS Bank is regulated by the CBR and conducts its business under general license number 2268 issued on December 17, 2014. In 2018, RAEX (Expert RA rating agency) assigned MTS Bank a credit rating of ruBBB+, and Fitch Ratings upgraded the bank's rating to BB-. In 2019, rating agencies affirmed the credit ratings of the financial institution. As of December 31, 2019, among Russian banks, MTS Bank ranked 29th in terms of the amount of household deposits, 37th in terms of capital and 41st in terms of total assets, according to Banki.ru and Frank RG. As of December 1, 2019, MTS Bank ranked the 5th in terms of loan portfolio size and issuing point-of-sale loans and 13th in terms of credit card portfolio in Russia according to Frank RG.

Our strategy of MTS Bank development is building of a digital bank in cooperation with telecommunication business, resulting in positive synergies and fulfilling financial services area to create a single ecosystem of digital services for customers.

Banking services revenue in 2019 was RUB 29,837 million, representing 6.3% of our total revenues for the year ended December 31, 2019. MTS Bank's net operating profit was positive and amounted to RUB 2,125 million. MTS Bank activities (financial assets and liabilities, management of liquidity risks connected with the activities) are described in Note 28 to the consolidated financial statements. Outstanding deposits and loans to customers as at December 31, 2019 came to RUB 92,842 million. Loans to legal entities made up 23.9% of that total, 73% were loans to individuals.

Detailed segment information for MTS Bank is presented in Note 5 to the consolidated financial statements.

As of December 31, 2019, approximately 97% of our mobile subscriber base was in Russia and approximately 3% was in other countries. According to AC&M-Consulting, as of December 31, 2019, we had a 30% market share of total mobile subscribers in Russia.

The table below sets forth our total mobile subscribers as of the end of the last five years:

<u>Period</u>	<u>Subscribers⁽¹⁾</u> <u>(in million)</u>
2015	81.0 ⁽²⁾
2016	83.7 ⁽²⁾
2017	80.4 ⁽³⁾
2018	80.1 ⁽³⁾
2019	81.3 ⁽³⁾

(1) Excludes MTS Belarus subscribers as its results of operations are not consolidated in our financial statements. We define a subscriber as an organization or individual, whose SIM-card shows traffic-generating activity or accrues a balance for services rendered or is replenished or topped off over the course of any three-month period, inclusive within the reporting period, and was not blocked at the end of the period.

(2) Excludes Uzbekistan and Ukraine subscribers.

(3) Excludes Turkmenistan and Ukraine subscribers.

In August 2016, we ceased our operations in Uzbekistan. In September 2017, we suspended the provision of telecommunication services to our subscribers in Turkmenistan, due to the termination by Turkmen state-owned companies and state authorities of line rental, frequency allocation, interconnect, and other agreements necessary to servicing MTS clients. For more information, see "Item 3. Key Information—D. Risk Factors—An outcome of the proceedings relating to sustaining operations of our subsidiary in Turkmenistan is unpredictable."

In November, 2019, the Group entered into a sale agreement to dispose of VF Ukraine. The disposal was effected in order to concentrate on development of the Group's core Russian market. The disposal was completed in December, 2019, and is reported in the current period as discontinued operation. For details on the sale, please see "Item 4—Information on our Company—A. History and Development" and Note 10 to the consolidated financial statements.

According to AC&M Consulting, overall mobile cellular penetration in Russia was approximately 178% as at December 31, 2019 and 174% as of December 31, 2018 and December 31, 2017. According to our estimates, mobile cellular penetration in Armenia was approximately 127.6% as at December 31, 2019 and 125.5% as of December 31, 2018, as compared to approximately 121.5% as of December 31, 2017.

Our consolidated mobile subscriber base changed insignificantly in the first two months of 2020. Specifically, according to our estimates as of March 1, 2020, we had approximately 81.0 million subscribers, including approximately 78.8 million in Russia and 2.2 million in Armenia.

As of December 31, 2019, according to our estimates, MTS Belarus had approximately 5.6 million subscribers and a leading market share of 46.9%. As of December 31, 2018, according to our estimates, MTS Belarus had approximately 5.5 million subscribers and a leading market share of 45.9%. As of December 31, 2017, according to our estimates, MTS Belarus had approximately 5.2 million subscribers and a leading market share of 44.8%. Belarus, a country with a population of approximately 9.5 million, had a mobile cellular penetration rate of approximately 126.7% as of December 31, 2019, according to our estimates.

As of December 31, 2019, we had mobile licenses to operate and commercial mobile operations throughout the entire territory of Russia with a population of approximately 146.7 million people and throughout the entire territory of Armenia with a population of approximately 3.0 million people. See "Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business—Failure to renew our licenses, or receive renewed or new licenses with similar terms to our existing licenses, could have a material adverse effect on our business and results of operations," and "—Failure to fulfill the terms of our licenses could result in their suspension or termination, which could have a material adverse effect on our business and results of operations."

In 2019, we offer fixed line communications services in 56 regions across Russia, covering a population of about 25 million households.

Our Moscow fixed line operations contemplate communications services provided through incumbent operator MGTS. Our Moscow fixed line operations included 2.7 million unique residential subscribers as of December 31, 2019. We are the largest operator in the Moscow residential broadband market, with a 37% market share. MGTS holds licenses and regulatory approvals to provide local telephony, DLD/ILD voice telephony, interconnect to other operators, Internet and data transmission and other services.

Our fixed line operations in other cities include the following communications services: voice, data and Internet and pay-TV services for corporate and residential subscribers, as well as the provision of interconnect services to other communications operators and numbering capacity to their subscribers. As of December 31, 2019, we had 2.8 million unique residential subscribers according to our estimates. Fixed line services are also provided in Armenia with digital telephony communications services, data transmission, Internet access and the renting of channels.

We have also continued to develop our proprietary sales and distribution network organically.

To maintain and increase our market share and brand awareness, we use a combination of print media, radio, television, direct mail and outdoor advertising, focusing on brand and image advertising, as well as promotion of particular tariff plans.

Business Strategy

Over last five previous years we were building our business following the **3D** strategy: “**Data—Digital—Dividends.**” This strategy was addressing transition from voice-oriented to data-oriented business-model in telecommunications while constantly working on improving efficiency of our business. We have also started developing digital capabilities to provide digital services and optimize business processes. As the result we kept solid leadership on our core telecommunication market and provided the high level of shareholders’ remuneration. We also have built significant competences in digital areas such as Big Data and AI and entered a number of adjacent business lines such as banking, cloud computing, entertainment, media etc.

Recently we have developed and adopted the new strategy called “**Customer Lifetime Value 2.0**” (“**CLV 2.0**”) which is aimed to build substantial digital business on the top of our telecommunication business. The name of the strategy reiterate that we put **Customers** at the center of our value proposition. We plan to supply our customers with a wide range of digital services. Our strategy is focused on prolonging customers’ **Lifetime** with our services by increasing emotional attachment to the brand together with level of satisfaction and loyalty. We focus on providing more **Value** for our clients and maximize their value to us in the long run. Reference to “**2.0**” stresses that we are shifting from single-business line telecom-centric ideology (which could be considered “1.0”) to a multi-product digital services provider approach and which should enable us maximize value across the whole product portfolio.

We believe that expansion from telecommunication into adjacent markets such as financial services and entertainment supported by digital capabilities like Big Data and AI will be a first step to our future convergence into multi-service digital company. We intend not to rely on development of our own products portfolio solely, but rather build partnerships with independent services providers. Collaboration with such projects should enable us to offer more innovative, various and convenient services to our clients and bring more value to their life. In the nearest future we plan to increase the number of partnerships and boost our partnership capabilities and value proposition them in order to become ultimate preferred choice for our potential partners.

Russian market of digital services is quite unique due to the fact that in most of the segments local projects retain leadership positions and compete successfully against the global players. This situation is due to multiple fundamental reasons ranging from customer’s behavior and language specifics to regulatory requirements and structure of capital market. This allows major Russian business-groups from banking, retail, high-tech, and telecom sectors to aggressively develop multiple lines in digital businesses and adopt ecosystem approach in their business strategies. We believe we are entering period of new competition for customer spend and attention in the Russian market.

We believe that we are well positioned for this type of competition. Our strong brand and deep knowledge of our clients supported by powerful analytical capabilities (Big Data and AI-based) will allow us to provide our clients with seamless, deeply customized and personalized digital experience for wide portfolio of different services. We have already experienced substantial synergies between telecommunication, banking and media services which allow us effectively utilize our online and offline marketing capabilities and deep customer knowledge. We clearly see that customers with a few different services from us bring higher value and have high level of brand loyalty and services satisfaction. We intend to increase the penetration of customers utilizing few different services provided by us in our customer base.

We believe that developments in areas other than telecommunication will add significant growth in the business over time and make users more loyal to the company in all services. We see our telecom business not only as the main source of revenue and profits, but also as the platform for our digital expansion. We aim to keep this part of our business in a robust shape both in terms of quality of services and economical effectiveness. To achieve that we will keep spending at significant capital expenditure level to keep with expectation of our customer base and stay at par with competition on the Russian market.

Transition to the full-scale operational model within CLV 2.0 concept will take some time. We believe that in 2020 we will complete putting in place major components required for renovated business-model. In the following years it should allow us to radically expand our digital services portfolio and substantially grow number of multi-product clients. This should allow us to grow customer base and increase customer spending while driving up brand emotional attachment and loyalty.

Implementation of the strategy is subject to a number of risks. See “Item 3. Key Information—D. Risk Factors” for a description of these and other risks we face.

Current Operations

We are a provider of a wide range of mobile and fixed line voice and data telecommunications services, including data transfer, broadband, pay-TV and various value-added services, including Big Data, IoT, cloud services, banking services, e-commerce, as well as selling equipment, accessories and software.

Subsidiaries

For a list of our major subsidiaries and our ownership percentages in these subsidiaries, see “Item 4. Information on our Company—C. Organizational Structure.”

Mobile Operations

Network Infrastructure—Mobile Core

As of December 31, 2019 MTS Mobile core network in Russia includes the following nodes:

- Mobile switching centre-server (MSC-S): 151 nodes, servicing 60 million subscribers;
- Media gateway (MGW): 136 nodes, maximum capacity 4.2 million Erl.;
- Subscriber Data Management (SDM) includes 23 nodes (Home Location Register (HLR) / Home Subscriber Server (HSS));
- 44 Serving GPRS Support Node/Mobility Management Entity (SGSN/MME) and Serving/Packet Data Network—Gateway (S/P-GW) nodes are used to handle packet data services;
- 16 Signalling Relay Function (SRF) nodes deployed on network for handling Mobile Number Portability (MNP) services.

The following network expansion and modernization projects were executed during the course of 2019:

- MSC-S/MGW and S/P-GW nodes were expanded as a result of voice and data traffic growth;
- Network modernization obsoleted MSS DX-200 and MGW IPA2800 Nokia nodes were replaced by new MSS ATCA and MGW ATCA Nokia;
- SWAP PS Core Far-East macro-region: SGSN/MME Huawei nodes were replaced by new SGSN/MME ULTRA-M Cisco;

- Upgrade IMS Core Nokia launched VoLTE in 59 regions.

Services Offered

Network Access

We primarily offer mobile cellular voice and data communication services to our subscribers on the basis of various tariff plans designed for different market segments. In general, most of our tariff plans combine voice and data usage for a fixed monthly charge. See “Item 4. Information on Our Company—B. Business Overview—Mobile Operations—Tariffs.”

Automatic Roaming

Roaming allows our customers, both subscribers and guest roamers, to receive and make international, local and long-distance calls while traveling outside of their home network. Roaming is provided through the agreements between us and other operators.

As of December 31, 2019, we had bilateral roaming contracts with 870 wireless operators/networks in 232 countries, including 18 regional operators/networks in Russia. We continually seek to expand our roaming capability and are currently in negotiations with additional operators.

Value-Added Services

We offer various value-added services to our customers. These services may be included in the tariff plan selected by the subscriber or subscribers may pay additional monthly charges and, in some cases, usage charges for them. Some basic value-added services that we offer include:

Basic telephony

- Call Divert/Forwarding
- Caller ID Display and anti-Caller ID Display
- Conference Calling

- Voicemail
- Call Barring
- Call Waiting
- Missed Call Alert
- Intelligent call assistant

- Collect call
- Black List
- VoLTE/Wi-Fi Calling

Customer care

- Itemization of Monthly Bills
- Information and Directory Service
- Automatic Customer Care System and Customer Care System via the Internet
- My MTS service app

Other services

- Ring Back Tone
- Second Memory (Cloud storage)

- Parental control for internet, calls, sms

- Connected Car (IoT B2C)
- MTS Music
- MTS TV
- MTS Library
- VoD (Video on Demand)
- Location Based Service (“LBS”)
- Mobile banking
- Security and Privacy services for B2C
- Branded App for calls and messaging

Messaging

- SMS P2P, A2P
- MMS
- Application MTS Connect

Mobile internet

- 3G, 4G (LTE)
- Data share plan
- Real IP
- E shop
- APN remote access point
- Fixed Mobile Convergence
- MTS Modem
- MTS Tablet
- Mobile Office
- Wi-Fi

We also provide many voice and SMS-based value-added services in cooperation with various content providers.

GPRS, EDGE services

We launched our commercial 2G network in 1994 based on GSM-900 technology. From 1999, we significantly improved our 2G network capacity based on GSM-1800 technology. From 2001, we implemented wireless data communication services based on GPRS technology with download data rate of up to 85.6 Kbit/s. In 2005, we modernized our GSM network to support EDGE technology and tripled data services rates. Today we continue supporting and modernizing our 2G network and we put the prime focus at the development of our 3G and LTE networks in order to provide our subscribers with high-speed broadband wireless services. As of December 2019, we provided GSM, GPRS and EDGE services with more than 45,000 2G sites over the geographic area with more than 95% of population of Russia.

3G Technology

In April 2007, we obtained a nationwide 3G/UMTS (Universal Mobile Telecommunications System) license in Russia. The license was valid till May 21, 2017 and covers the entire territory of Russia with frequencies 1950-1965 MHz and 2140-2155 MHz. In 2017 we prolonged the 3G/UMTS license till 2022. Currently we have commercial 3G networks launched in all regions of Russia. In addition, we use UMTS900 in Moscow region and Habarovskiy kray where we have 2100 MHz restrictions. As of December 31, 2019, we installed 44,918 3G sites.

In 2010, we started implementation of a high-speed technology known as HSPA+ on our 3G network. This supports up to 21 Mbit/s data transmission speed. In addition, we launched second and third 3G carriers to improve capacity and activated Dual Carrier technology, which supports up to 42 Mbit/s data transmission speed. We have already implemented Dual Carrier on more than 99% sites all over the Russia.

Since 2011, we use 3G femtocell network. Femtocells are small low-power wireless base stations in the licensed 2100 MHz spectrum. They connect to a mobile operator's network using residential DSL or cable broadband connections and can support 3G/HSPA+ mobile devices. We use femtocells to deliver a 3G/HSPA+ services inside building for business clients. In 2016, we launched offer of femtocells for consumers at B2C market segment. In 2017, we launched femtocells in Metro in Moscow. The total number of femtocells installed in Russia reached 11,049 by the end of 2019.

MTS Armenia, our subsidiary in Armenia, have operated commercial 3G network since 2009. In 2011, MTS Armenia started to provide telecommunications services based on HSPA+ technology in Yerevan, six northern regions and in some southern regions of the country. At present HSPA+ technology with QAM64 and Dual Carrier features is available to almost 99% of the Armenian population. Also 2-pairs of RNCs in pool were put in operation in 2019 for increasing UMTS network capacity and reliability.

In 2018, we launched a major network upgrade project in Armenia, which is expected to result in significant increase of 3G and 4G services coverage as well as of network capacity. It includes a re-farming of 900 MHz frequency band to UMTS and 1800 MHz band to LTE with implementation of Carrier Aggregation technology. New Core network nodes were put in operation in 2018, marking the end of a bigger CS and PS Core modernization project.

LTE Technology

In July 2012, we won Russian Ministry of Communications and Mass Media tender for nationwide LTE-FDD license: 720-727.5 / 761-768.5 MHz, 798.5-806 / 839.5-847 MHz and 2540-2550 / 2660-2670 MHz. In December 2011 we got LTE TDD license in 2595-2620 MHz for Moscow only. Since September 2012, we offer LTE-based commercial service in Moscow region, where we initially deployed more than 800 LTE TDD base stations. As of December 2019, we had 2,229 LTE TDD and 12,196 LTE FDD base stations in Moscow.

In December 2013, Russian regulator allowed re-farming existing 900 and 1800 MHz spectrum to UMTS-900 and LTE-1800. In 2014, we started DCS 1800 spectrum re-farming to LTE and rolled out LTE-1800 network, while expanding LTE 800/2600 coverage. In February 2016, MTS won Russian Ministry of Communications and Mass Media tender for nationwide LTE-TDD license and obtained LTE-TDD frequencies in following bands: 2595-2620 MHz for the whole territory of Russia, except Moscow region (obtained earlier). We are using LTE-TDD as a capacity layer to cope with increasing network utilization due to growing data traffic. In 2018, we started re-farming of existing 900 and 2100 MHz spectrum to LTE-900 and LTE-2100. As of December 2019, we had 69,032 LTE base stations in 83 regions of Russia.

Our LTE network meets requirements of 3GPP Release 14 in line with available LTE customer equipment. We provide data services with download data rate up to 700 Mbit/s, and up to 75 Mbit/s in uplink direction with our LTE network.

As of December 2019, we implemented Carrier Aggregation functionality at 40% of our LTE sites.

In 2018, we launched IoT services based on NB-IoT technology (Narrow Band IoT) in 20 largest Russian cities, including Moscow, Saint Petersburg, Novosibirsk, Kazan, Nizhny Novgorod, Vladivostok and others. MTS is IoT leader in Russian market, with large-scale narrow-band coverage provided by over 30000 base stations. We plan to continue NB-IoT rollout in the smaller cities of Russia in 2020.

In May 2018, we launched a commercial broadband Gigabit Class LTE network with LAA technology. The network showed downlink user throughput of up to 979 Mbps thanks to the aggregation of licensed LTE spectrum in the 1800 MHz (4x4 MIMO, 256-QAM) and three 20 MHz carriers (2x2 MIMO, 256-QAM) in the 5 GHz unlicensed spectrum.

In 2019, we started to modernize our network to support LTE-Evolution technology and 5G-ready in 7 North-West regions. We plan to start modernization of our network in Moscow and Central regions in 2020.

In June 2018, at the FIFA 2018 World Cup MTS performed world's first commercial launch of massive MIMO technology at mass event of such scale and complexity. The technology was introduced in the LTE-TDD 2600 MHz band (B38) at more than 40 sites in seven out of the 11 tournament cities, including Moscow, Saint Petersburg, Kazan, Rostov-on-Don, Nizhny Novgorod, Ekaterinburg and Samara. The new technology allowed us to increase efficiently network capacity around the stadiums, at railway stations, at airports, in fan zones, and recreation areas. In 2019 we continued massive MIMO technology rollout in 23 cities.

In September 2019, we launched two 5G pilot zones in Moscow and Saint Petersburg in 27GHz and 4.9GHz frequency bands. The pilot zone in Moscow is located at the VDNKh Exhibition Centre with tests to include Smart City applications for security, urban services management and transport systems. The pilot zone in Saint Petersburg is located in Kronshtadt. In October 2019, MTS StartUp Hub has unveiled the 5G Lab - an open incubation platform where startups and other companies can develop new 5G use cases using expertise, grants and other support from MTS.

In 2019, MTS Armenia obtained the license to operate LTE network in 800 MHz band, as well as increased 1800 MHz band spectrum for increasing L1800 network capacity. By the end of 2019 the number of L800/L1800/L2600 base stations in operation is more than 1560 providing LTE services in urban as well as rural areas all over Armenia. We also started testing Wi-Fi Calling and VoLTE services, implemented with newly deployed IMS platform. Commercial launch of VoLTE in Armenia is planned for 2020.

5G Technology

Over the past few years, we launched agreements with leading global vendors to lay the foundation for cooperation on fifth-generation equipment and solutions.

In August 2019, we together with Huawei launched Russia's first large-scale urban 5G coverage on Saint Petersburg's island of Kronstadt, and made a 5G cell in Moscow near the Smart City pavilion in one of the city's most historic parks, VDNKh. In the early stages, the networks will be used for testing and to connect certain public facilities to the Internet, with plans for broader rollout to subscribers in the future. Coverage includes both 4.9GHz mid-band and 28GHz millimeter-wave frequencies.

In addition, we tested a preproduction Samsung 5G smartphone. Tests were carried out in Moscow at the Nokia laboratory within the pilot MTS millimeter-wave network based on Nokia commercial equipment, using MTS SIM cards and the Samsung S10 5G pre-commercial smartphone based on the Snapdragon 855 platform with Snapdragon X50 modem.

In October 2019, we opened a 5G Lab at the Moscow pilot zone that will provide a platform for startups to develop new products and solutions based on fifth-generation connectivity. Potential 5G applications include smart city solutions in transportation, as well as new use cases in IoT, cloud computing, telemedicine, autonomous vehicles, and virtual and augmented reality (VR/AR).

Artificial Intellect

In 2017, we created an artificial intelligence center, the main focus of which is the creation of innovative products and the addition of existing services to the company with new functions based on technologies for processing natural language, computer vision and speech recognition.

The key focus of the center is the development of virtual assistants, as well as the development of products in the areas of customer service, medicine, law and other areas.

In June 2019, we started selling customer service robots—automated dialogue systems that allow you to interact with a client without involving people. The solution, based on artificial intelligence technologies, processes any typical requests, for example, talks about products and services, answers popular questions, connects and disconnects services.

In November 2019, we, together with Sberbank, Yandex, Mail.ru Group, Gazprom Neft and the Russian Direct Investment Fund (RDIF), established an artificial intelligence alliance that will develop AI technologies in Russia. To develop solutions based on speech technologies, we also opened a research center in Skolkovo. Center experts intend to create the largest voice database in Russian, collecting and marking more than 15,000 hours of Russian speech

In December 2019, we started selling a virtual lawyer—the automatic document management and life cycle management system Norma. The solution is based on artificial intelligence technologies such as natural language processing and computer vision.

Norma has been working at MTS since 2018: it processes incoming documents, forms agreements, claims, controls the stages of the execution of clauses of contracts. Currently, 90% of Norma's tasks are solved without a specialist.

In the first half of 2020, we plan to launch the commercial operation of a smart speaker with a virtual assistant and a smart home system. The Voice Assistant Marvin service is currently in the testing phase.

Banking Services

In July 2018, we started rendering banking services made possible by the acquisition of control over MTS Bank. MTS Bank has accelerated the sale of its retail product with the help of MTS' Big Data capabilities and MTS' digital sales channels. The bank's financial products are complementary to our core business and fully integrating the services under the Group umbrella allows us to offer our customers new integrated services, unlocking new revenue streams and consolidating our brand in the wider consumer space.

MTS Bank carries out its activities in the following areas:

- Retail business

Serving individuals, including maintaining current accounts, receiving deposits, providing saving and investment products, custody services, servicing credit and debit cards, consumer and mortgage lending.

Serving small and medium-sized businesses, including maintaining current accounts, accepting deposits, providing overdrafts and lending services.

- Corporate business

Serving corporate clients, including cash settlement, maintaining current accounts, accepting deposits, lending, including overdrafts, providing documentary products, including guarantees, letters of credit.

- Investment business

Providing investment banking services, including trading in shares and bonds, precious metals and derivative financial instruments, placement of fixed income securities, issuing debt securities and attracting subordinated loans, operations with foreign currency.

Other Services

In addition to cellular communication services, we offer corporate clients a number of telecommunications services such as design, construction and installation of local voice and data networks capable of interconnecting with fixed line operators, installation and maintenance of cellular payphones, lease of digital communication channels, access to open computer databases and data networks, including the Internet, and provision of fixed, local and long- distance telecommunications services, as well as video conferencing.

Strategic Partnership with Vodafone

In October 2008, we announced a strategic agreement with Vodafone aimed at drawing on Vodafone's expertise in building and developing 3G networks and mobile broadband products, working with leading global equipment providers and deploying innovative client relationship management ("CRM") practices to enhance quality and further improve the efficiency of our operations. In addition, the agreement allows us exclusive access to a range of products, services and devices from Vodafone for our markets of operation in Russia and Armenia.

In 2018, agreement with Vodafone was prolonged until December 31, 2020.

Sales and Marketing

Target Customers

Our service model is based on the provision of services to differentiated levels of customers to meet the needs of distinctive customer segments as such segments have developed. We are not just a mobile operator brand. Our strategy is to build an umbrella brand which provides digital services and innovative products. We continued to work with youth audience with the main focus on digital channels, such as social media, banners, pre-rolls and branded content.

In 2019, we focused our efforts on the following directions:

- Launching of the new brand positioning, slogan and visual style;
- Promoting innovative V&D (voice & data) billing plans;
- Promoting the MY MTS new features;
- Promoting convergent offers in partnership with HBO and FOX;
- Promoting devices with special operator offers;
- Promoting fixed broadband business and satellite TV; and

- Promoting our services specifically for teenage audience.

Advertising and Marketing

Our advertising and public relations initiatives include:

- brand and image advertising and public relations to position us as the leading mobile cellular operator;
- category and loyalty campaigns to inform our current and potential customers of the advantages of the high quality and variety of our services and the extensive coverage we offer; and
- product and tariff related advertising and promotions, pricing discounts for various target audiences to demonstrate value for money and cover specific needs.

The key subjects for our advertising campaigns in 2019 included promotion of innovative billing plans (voice & data), convergent offers in partnership with HBO and FOX, special offers for devices in our retail stores and new features of the application My MTS.

In order to build brand awareness and stimulate demand we use a combination of various advertising formats, including television, outdoor, retail and radio. Increasingly, we also advertise on-line in desktop and mobile. Additionally, our indirect advertising includes sponsorship of different events: life music shows and food festivals. We also coordinate the advertising policies of our dealers and partners, such as MTS Bank, to capitalize on the increased volume of joint advertising and preserve the integrity and high-quality image of the MTS brand.

In line with our strategy to find new ways of effective communications, especially in the digital channel, we launched special activations with partner websites and several collaborations with popular Russian bloggers and other formats of online advertising (branded content, collaborations with bloggers; social media integrations, etc.) in 2019.

To support our key directions, we undertook the following initiatives in 2019 in Russia and in other countries where we operate.

Launching of the new brand positioning: slogan and visual style

In 2019, we presented new brand positioning: a new slogan and visual style. We are on the way of transformation from the classical telecom brand to the ecosystem company with expertise in different businesses with the focus on digitalization. These business changes need to be improved by brand identity and brand positioning. Every day MTS improves, creates services and technologies that help people being better every day.

The concept of new positioning:

Everyone has a perfect image of ourself, what we would like to be. Getting better day by day, we change not only ourselves and our lives, but also the world around us, encouraging others to show their best side.

We develop the network, create new services and applications and improve the quality of service to be the best company for our customers. The new slogan is: “Better every day.” New visual style become more flexible, dynamic and innovative.

We changed irrelevant craft (brush stroke) to a dynamic red band, growing from the typography of the new MTS logo. This element reflects the continuous progress of the brand, the movement forward and the desire for improvement.

Promoting innovative V&D (voice & data) billing plans

In the end of 2018, we launched “Tarifishe”—the unlimited V&D (voice & data) billing plan. We added a new feature that allows sharing the unlimited internet with other people or with other customer’s devices according to the customer’s needs. We launched a new innovative billing plan with artificial intelligence—the special mechanic would analyse customer’s usage of traffic (gigabits, minutes, sms) during one month and will create a billing plan which will fit any such customer perfectly.

Mobile payments and financial services

MTS continued to expand financial services in 2019. MTS with MTS Bank collaboration launched new fin-tech product. Based on MTS CASHBACK program, new bank-product offered up to – 25% cashback from certain shop-categories and guaranteed return of 5% from mostly needed daily purchases in supermarkets, in petrol (gas) stations and cinemas. The card was developed in three variants: Plastic, Digital, Digital-lite online. Depending on user, these plastic or virtual cards could be installed in My MTS and “MTS Dengi” Apps, making cashback easier to use. Realistic monthly cashback up to RUB 10,000 could be spent on new smartphone, accessories in MTS shops or as monthly payment for MTS mobile services.

MTS CASHBACK received award in Finance segment “Russian Financial Awards” 2019 for “Best bank-product break-through” and “Best creative ad campaign.”

Additional promo-offers supported MTS brand financial awareness throughout the year: mobile auto-payments features: e.g. set auto-payment option and get 10% off monthly payments for mobile, collaboration payments with VISA; Megafon; Mobile daily payments for easier life such as: monthly house payments; payments for kindergarten; money transfer without commission, etc.

Promoting MY MTS new features

In 2019, we have done several campaigns focused on improving of the quality perception of customer service: MTS customers are protected from unwanted subscriptions, convenient expense detailing in the My MTS app, a chat-bot feature for quickly solving customers’ issues without going to MTS retail stores or calling to a customer’s hot line. To promote the campaigns, we used a wide range of channels: TV, out-of-home advertising, digital, radio, indoor, MTS retail stores.

GPON and Satellite TV

Satellite television was supported by two major federal TV campaigns: (1) “Unlimited internet with Sputnik TV just for RUB 2,990” and—(2) “Get Sputnik TV for RUB 3,990 and we will return the same amount on your account.” Major campaign drivers were: special billing plans for new subscribers; celebrities’ endorsements; valuable convergent proposals uniting Wi-Fi with unlimited internet access and satellite TV in most remote places. MTS Sputnik TV became market leader in subscriber base growth in 2019. In 2019, MTS Sputnik TV increased subscriber base almost by third: from to 660,000 to 850,000 subscribers.

We continued promotion of the benefits of the GPON technology and fast Internet with special offers and also reminding users about the new technologies at home which require advanced Internet connect.

Promoting convergent offers in partnership with HBO and FOX

In 2019, we launched a federal campaign supporting a promotion allowing new MTS TV subscribers to watch the final season of “Game of Thrones” for free and to get free mobile communication on top of that if they choose to join home Internet along with TV. It was the first federal campaign in partnership with foreign content studios HBO and FOX.

Devices

In 2019, the majority of devices-related communication campaigns were targeted at supporting smartphone sales (of various price categories) in MTS retail, as well as supporting launches of global specialty products (Samsung, Honor, Huawei).

The main mechanics used in promotion (and communication) were: loans, cashback, price offers, as well as trading-in and bundled package offers (device and billing plan as one subscription).

Promoting our services specifically for teenage audience

In 2019, we continued experiments in youth segment. We launched a new marketing campaign for the youth tariff plan “Tariff X” with relevant musicians and bloggers: “Big Baby Tape” (twice platinum music album in 2019), Instagram-blogger “Polya is Derevki” and Youtube-blogger Chuma Vecherinka.

Also in 2019 we launched “youth branded content” stream in MTS and released our own web-serial “The Last Rave” on YouTube that consisted of 4 episodes. The story was about 2 freshmen: they were invited to perform at one of the top Russian rap-festivals “Rhymes.”

B2B offers

We continued to develop B2B positioning for SME and Big corporate segments. Corporate segment key initiatives included events in regions with key decisions makers of various big companies.

We continued supporting SME segment with “MTS Marketolog” platform, which helps companies to launch advertising campaigns without agencies. The product was promoted mainly in digital.

Roaming

In 2019, we continued promoting the “Zabugorishe” (“Abroadest”), an offer for international roaming (both a billing plan and add-on option). Any “Zabugorishe” subscriber can make calls and use Internet both in Russia and abroad just like at home (within the usual home package) and also can chose a “favourite” number and talk with it without any limits.

Global recognition

In 2019, we received several awards at the international Effie festival: Gold award in Retail category for campaigns promoting devices, bronze award in Youth marketing category for “Access” project and silver in New technologies in communications category for “Access” project.

Sales and Distribution

We have historically enrolled the vast majority of our subscribers through a network of independent dealers that operate numerous points-of-sale in places with high consumer activity, such as supermarkets, shopping centers, transportation hubs and markets. In 2009, in response to changes in the independent retail market, we began to develop our own proprietary retail network to more effectively control sales of SIM-cards and provide a platform to sell handsets and accessories. We organized our retail operations under a wholly owned subsidiary, RTC. RTC handles all functions relating to our retail operations, including the management of points-of-sale, the purchase and sale of handsets and accessories and subscriber enrollment at our retail outlets. It also requires us to secure optimal locations for our points-of-sale and monitors the effectiveness of their operations.

In 2017, sales in the Russian market reduced for the first time and continued reducing at a higher rate in 2018. Moreover, the churn rate also reduced, which confirmed the improvement of the mobile retail market.

In 2018, our competitors VEON Ltd. and MegaFon agreed on the termination of their joint ownership of Euroset outlets. MegaFon purchased the brand and the business with VEON Ltd. purchasing 50% of points-of-sale.

In 2018, VEON Ltd. rebranded points-of-sale and they began to work under the “Beeline” brand. MegaFon and SLV Group (Svyaznoy owner) have signed an agreement on merging Euroset and Svyaznoy into one retail network, which currently operates under Svyaznoy brand. These transactions marked the beginning of the transformation from the multibrand retail network to the monobrand retail network.

In 2019, we signed a partnership agreement with Svyaznoy. Now Svyaznoy retail network consumers across the country can sign contracts and get information about our tariffs and services. Moreover, in 2019 we and M.Video-Eldorado group, which is the largest household appliance and electronics retail network in Russia, also signed a partnership agreement. We placed stands in large M.Video stores. In addition, joint retail electronic stores, where consumers can arrange our services, have been opened. Furthermore, in 2019, we launched a pilot project to sell smart watches in the largest children goods retailer Detsky Mir. Special zones with wearable devices were installed in several dozen stores, where customers can get acquainted with the watches models and get advice from our specialists.

Such partnerships with market leaders allow us to optimize retail costs and reduce the planned number of own retail points-of-sale.

Our proprietary distribution network consists of MTS-branded franchise points-of-sale (third-party dealers operating under the MTS brand) and MTS-branded points-of-sale owned by us. As of December 31, 2019, we operated 5,679 points-of-sale, including 1,762 franchise points-of-sale and 3,917 points-of-sale owned by us. In 2019, we increased the efficiency of retail points-of-sale, as a result the number of points-of-sale has decreased by 193 year-to-year.

We follow the digital solutions market leadership strategy. Development of own digital ecosystem is the base of digital leadership strategy. Connected sales are one of the points of our own ecosystem. Thus, in 2019 convergent offers of mobile connection, mobile Internet and satellite television were launched.

For newly acquired mobile subscribers in Russia, we link commissions payable to a dealer on a monthly basis to the amount of revenues we receive during six- to 12-month period from the date a subscriber is activated by a dealer. In addition, we have established caps, or a maximum commission amount payable to our dealers. The dealer commissions in Russia currently range between RUB 80 and RUB 2,800 per subscription.

Competition

The Russian wireless telecommunications market

Until 1998, mobile communications developed slowly, penetration was less than 0.5%. Further, as a result of explosive demand in 2006, the number of subscribers registered in networks exceeded the country’s population. Three market leading operators, MTS, Beeline and Megafon, served 85% of the subscriber base. Over the past decade, the Russian market has stabilized; further growth is associated with the development of the IoT services market and M2M devices. As of December 31, 2019, overall wireless penetration in Russia was approximately 178%, or approximately 260.7 million subscribers.

The following table sets forth key data on Russia’s wireless telecommunications market as of the dates indicated:

	As of December 31,		
	2019	2018	2017
Subscribers ⁽¹⁾	260.7	255.7	256.4
Subscriber penetration (%)	178	174	174

According to AC&M-Consulting.

(1) Based on registered subscribers (SIM cards only) including MVNO networks. There is no uniform definition of active subscribers in the Russian wireless market.

The primary mobile providers in Russia include us, MegaFon and VEON (VimpelCom), each of which has effective national coverage in Russia. Competition is based on network coverage and quality, the level of customer service provided, roaming and international tariffs, local tariff prices and the range of services offered. For a description of the risks we face from increasing competition, see “Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business—We face increasing competition in the markets where we operate, which may result in reduced operating margins and loss of market share, as well as different pricing, service or marketing policies.”

The following table illustrates the number of wireless subscribers for each network operator in Russia as of December 31, 2019, 2018 and 2017:

Operator	As of December 31,		
	2019	2018	2017
	(amounts in millions)		
MTS	79.1	78.0	78.3
MegaFon	75.2	75.2	75.4
VEON Ltd. (VimpelCom)	54.6	55.3	58.2
T2 RTK Holding (Tele2+Rostelecom)	44.6	42.3	40.6
Others & MVNO	7.2	4.9	3.9

According to AC&M-Consulting.

MegaFon. MegaFon, which operates GSM 900/1800, UMTS (3G) and LTE (4G) networks, is one of our primary competitors in Russia, and it is the second largest GSM wireless operator in Russia in terms of subscribers. According to our estimates, MegaFon had a subscriber base of approximately 75.2 million subscribers in Russia, which represented a 29% market share as of December 31, 2019.

VEON. In addition to MegaFon, we also compete with VEON, which is the third largest GSM 900/1800/UMTS (3G)/LTE (4G) wireless operator in Russia in terms of subscribers.

According to our estimates, VEON had a subscriber base of approximately 54.6 million in Russia at December 31, 2019. At December 31, 2019, VEON had a 21% market share of total wireless subscribers in Russia.

T2 RTK Holding. In February 2014, Tele2 and Rostelecom announced a merger which created a new federal wireless provider. The license portfolio of the new company covers all Russia which effectively permits the roll out of federal-scale networks. The most important event for operator was the launch of 3G/4G network in Moscow region in October 2015. The operator’s services are now available on the territory where 97% of Moscow Region residents live. In 2018 - 2019, Tele2 have actively rolled out 3G and 4G networks, launched new tariffs, options and services which enabled to provide customers with services similar to those of the market leaders. In 2019, the operator launched a network in the Ivanovo and Yaroslavl regions in the 2G / 3G / 4G standard. By the end of 2019, Tele2 LTE networks were launched in all 67 regions.

According to our estimates, Tele2 had a subscriber base of approximately 44.6 million in Russia and 17% market share as at December 31, 2019.

Other Operators. The number of subscribers of other operators, including MVNO operators, is about 7.2 million customers as of December 31, 2019.

The Armenian wireless telecommunications market

As of December 31, 2019, overall wireless penetration in Armenia was around 127%, or total 3.77 million active subscribers, according to the Socio-Demographic Data report published by Statistical Committee of Republic of Armenia (about 2.96 million population) and estimated figures of the competitors.

The following table illustrates number of active subscribers and the coverage area of MTS Armenia and competitors—Beeline (VEON Armenia) and Ucom, as of indicated dates.

Operator	As of December 31,		
	2019	2018	Coverage Area
	(amounts in thousands)		
MTS Armenia	2,207.37	2,128.13	Nationwide
Beeline	947.79	1,002.35	Nationwide
Ucom	621.05	590.53	Nationwide

Sources: <https://beeline.am>; <https://www.ucom.am>; <http://mts.am>.

As of December 31, 2019, MTS Armenia reported total 2.21 million 3-month active subscriber base, reflecting increase of 3.72%, y-o-y. Market share from 3-month active subscriber base was around 58.5% as of end of the year 2019.

Tariffs

We customize our marketing efforts and pricing policies in each region of Russia and our other countries of operation by considering such factors as average income levels, the competitive environment and subscriber needs, all of which vary from region to region. Consistent with our marketing strategy, we have developed tariff plans to appeal to a broader market. The following table shows the mix between Prepaid and other subscribers, such as contract and corporate customers, for Russia for the periods indicated:

	As of December 31,		
	2019	2018	2017
Russia			
Prepaid	31%	36%	43%
Contract and corporate	69%	64%	57%

We currently have a unified system of tariff plans offered to subscribers throughout Russia. The unified system is aimed at achieving such benefits as clarity, simplicity and transparency for prospective subscribers by offering the same set of tariff categories throughout Russia. Under each tariff category, we offer different tariff plans with different connection fees, per minute call charges and a wide range of value-added services.

By advertising on a national rather than regional or local level, we have been able to streamline and reduce our advertising and marketing expenses through unified advertising campaigns throughout Russia. Furthermore, we are able to convey to consumers a more uniform perception of our brand and services.

Tariff Plans in Russia

Currently, each of our tariff plans in Russia combines per minute usage charges, value-added services in packages and different monthly network access fees (with the exception of the prepaid tariff plans) designed for different market segments. Our tariff plans are currently divided into several categories - "Prepaid," "Smart," "Premium," "Data," IoT, "Corporate" and "Convergent" - with each category designed to target specific segments as follows:

- *Prepaid:* Prepaid tariff plans are geared towards consumers who use their mobile phones for personal communication. These plans do not have monthly subscription fees and the per-minute fee charges depend largely on the tariff plan chosen. We offer tariff plan "Super MTS" which varies depending on the region of the customer. Subscribers to our prepaid plans can reduce the price of their calls by using tariff options which have a subscription fee. After our customers subscribe to a particular prepaid plan, they have the option of switching to a different prepaid plan by using the mobile app "My MTS" or sending an SMS message (USSD request) to a designated number.
- *Smart:* "Smart" is the family of integrated voice and data tariff plans for customers with active mobile data usage, which we believe will remain the main offer for a long period of time. "Smart" has a monthly fee for a bundle of all-net minutes and Internet. For the most of tariff plans the on-net calls above the bundle are free. Versions of "Smart" ("Smart" "My Smart," "X" for Youth segment, "Tarifische" with unlimited Internet and "Our Smart") differ by amount of minutes and megabytes included in the bundle and the corresponding monthly fee. "My Smart" is a personal tariff plan, where each user can adjust the tariff for their needs and select the required package of minutes and Internet. "Tarifische" is the tariff with unlimited Internet and option to adjust the tariff for personal needs and select the required package of minutes. We also have tariff plan "Our Smart" for family segment with opportunity to share bundle of all-net minutes and Internet with 5 devices.
- *Premium:* "Premium" tariff plans are designed for heavy users who call primarily within their domestic region. Subscribers of unlimited tariff plans are provided an unlimited number of local minutes and access to personal customer care service. In the Moscow region, for those subscribers issued a local number, monthly fees start from RUB 2,833.6 and those using a federal number pay from 2,416.6 per month. The "Ultra" tariff plan includes unlimited calls to MTS numbers as long as the recipient and the caller are in the same region (defined as "home region"), free domestic calls from the MTS network to any number regardless of carrier up to a certain limit of minutes, no roaming charges within Russia, unlimited mobile Internet and 5000 SMS messages within the network.
- *Data:* For active users of mobile Internet devices (e.g., 4G capable USB-modems and routers) we offer an unlimited tariff plan with limited speed 4Mbit/second after certain threshold.

- *IoT*: For smart devices with special consumption needs we developed unique tariff plan “Smart device” with annual subscription fee. In addition, we provide special tariff free of charge. This free of charge tariff may apply forever if our customer buys certain models of smart watches for kids in MTS retail stores and online.
- *Convergent*: “All MTS” is the family of integrated mobile and fixed line services with digital or satellite television. The purpose of “All MTS” is to strengthen the user base and reduce customer churn. “All MTS” has a monthly fee for a bundle (mobile, fix Internet and TV). The price for this tariff varies by region and depends on the competitive situation in the market.
- *Corporate*: We offer different tariff plans in each region targeted to meet the demands of our corporate clients, each plan allowing them to optimize their communication expenses in accordance with their individual consumption patterns. These plans feature specialized customer care, payment through our credit system and volume and tenure discounts. In addition, we provide customized pricing offers and technical solutions to our biggest clients.

Our tariffs vary from plan to plan. The description of tariffs and charges are, in each case, exclusive of VAT. As of December 31, 2019, the per-minute tariff for local calls within the MTS network varied from zero per minute to RUB 2.08 per minute. Different rates apply to local calls to other networks and vary from RUB 0.72 per minute to RUB 3.33 per minute. Higher rates apply to domestic long distance calls and rates for international calls vary from RUB 1.25 per minute for calls to the China and South Korea to RUB 66.67 per minute for calls to other parts of the world. Periodically, we run various promotional campaigns, either on the federal or regional level, in which we provide temporary discounts to our regular prices.

Customer Payments and Billing

We enroll new prepaid subscribers in an advance payment program. As of December 31, 2019, 74% of our consolidated subscriber base was enrolled in the advance payment program and 26% used a credit based system.

Our advance payment system monitors each subscriber account and sends an advance warning on the subscriber’s mobile telephone when the balance on the subscriber’s account decreases below a certain threshold.

Under the credit payment system, customers are billed monthly in arrears for their network access and usage. We limit the amount of credit extended to customers based on the customer’s payment history, type of account and past usage. As of December 31, 2019, subscribers using the credit system of payment had credit limits of up to RUB 2.87 million for key corporate customers in Russia. When a credit limit is reached, we block the telephone number until the balance is settled. There are no credit limits established for certain exceptional, high loyalty customers.

We provide “in full confidence” service, which allows our Prepaid customers who subscribe to this service to continue using services when the balance on the subscriber’s account becomes negative. As of December 31, 2019, subscribers using the “in full confidence” service had a maximum credit limit of RUB 345.3 thousands. Customer service representatives can set individual credit limits for subscribers based on their payments and charge history (*i.e.*, average balance usage) during the prior three months. When the credit limit is reached, our billing system blocks the phone number until the balance is settled. Similar to the credit payment system, the subscribers are billed monthly in arrears for usage. The invoice, which can be delivered to the customer by e-mail, fax, regular post and Internet, should be settled within 24 days. If the invoice is not paid five to seven days prior to the due date, the system sends an additional reminder. The telephone number is blocked on the 25th day if the invoice is not settled.

In Russia, we offer our subscribers various ways to pay for our services, including cash or credit card, wire transfer, prepaid cards and express payment cards.

We implemented Foris billing system in Russia in 2008. The Foris billing system allows us to offer all of our subscribers a uniform and consistently high level of service. It also supports the monitoring of account usage in real time. In addition, the system provides us with the ability to offer flexible tariff plans with various usage discounts and subscriber loyalty bonuses. Furthermore, we are able to provide our corporate subscribers with more sophisticated customized billing solutions. For example, our corporate subscribers who use multiple phone numbers in different regions of Russia now receive a single invoice, whereas our previous billing system could not support such a service.

In Armenia, we use the “Eskadenia” billing system.

Customer Service

Russia

In order to attract and retain customers, we must ensure a high level of service at all points of customer assistance, care and billing. In each region where we operate, we have contact centers that provide customer service 24 hours a day, seven days a week. Contact centers provide different services to our clients through various channels (telephone, email, chat). Customer service representatives respond to various issues such as phone lock due to lack of payment, handset operation, roaming capabilities, service coverage and billing. A particular group of customer service representatives handles customer complaints and helps those who want to change their service terms. We use automatic systems and independent analysis for monitoring availability and customer satisfaction level of service in our contact centers regularly. We conduct outbound campaigns with the assistance of our employees in the outbound contact center and the laboratory of the customer relationship management inasmuch as we need to improve customer loyalty and promote our services.

In 2019, we continued to develop “Situational IVR.” When calling the Contact Centre, customers listen to information about some cases, which correspond to their needs with respect to the events and statistics. More than 140 relevant scripts were created. This project decreased the number of calls to the contact-center up to 15% year-on-year. SIVR efficiency increased from 64% to 70%. In 2019, IVR saw a launch of the individual notice of customers of the status of and timeframe for solution of the previously registered applications/incidents/claims. In 2020, we plan to replicate similar functionality in My MTS application.

In 2019, we continued developing the Chat Bot on the AI basis. It settles certain issues and brings services to mobile customers without switching them to the call center operator. The Chat Bot was successfully replicated in My MTS application and currently available for mobile customers in all regions. Number of customers using the Chat Bot without speaking to the call center operator is about 70% of all customers seeking assistance with our services. Net promoter score of Chat Bot users is approximately 45%. During the 2020, we plan to continue development and improvement of the Chat Bot. We expect to extend the list of our services where the Chat Bot is used and will be implement the relevant developments and improvements to our applications and sites. B2B segment may enjoy the chat in My MTS and the Virtual Manager applications. For providing a high quality service, an allocated B2B customer support is arranged.

In 2019, we have introduced robotization and automatization of certain processes, which helped us to optimize our costs by 10% by reducing the total number of mobile contact centers.

In 2020, there are also plans to implement the platform for customer service analytics within which the data on key customer services will be collected, analyzed and processed with further generation of predicative models for the Chat Bots.

Network Infrastructure—Technology Strategy

Our technology strategy is formed in accordance with overall company's business strategy and intended to support the existing business operations, as well as to introduce new technologies allowing to launch new services in the future. Our technology strategy considers world technology trends in telecommunications.

The main focus of the technology strategy is consequent development of the network meeting future technology requirements: higher throughputs, lower latencies and flexible network core as enabler of the new services.

LTE has the main priority while deploying Radio Access Network (67% of the RAN deployment was LTE in 2019) and 2G/3G investments decrease gradually in accordance with changes in network UE penetration structure and traffic migration.

According to Technology Strategy we deploy LTE primarily in most efficient 1800 MHz band. In 2019, we have started active LTE deployment in 2100 MHz band. We use Carrier Aggregation, 256 QAM, MIMO 4×4 and other cutting edge techniques for better user experience. In 2019 we were the first in Russia to join Telecom Infra Project (Telecom Infra Project is an initiative to develop RAN infrastructure based on a general-purpose vendor-neutral hardware and software-defined technology). We will pay a lot of attention to Telecom Infra Project in the coming years.

Our technology strategy implies consistent innovative technologies introduction to make our network futureproof and ready for the new services introduction. We have already deployed the Nb-IoT network in 61 regions and plan to expand coverage throughout Russia in 2020. We have deployed 16 5G test zones in 5 regions and we plan to start providing commercial services as soon as we get frequencies for 5G.

Network Infrastructure—Site Construction and Sharing

In October 2014, MTS and VEON Ltd. (VimpelCom) has signed a contract about shared LTE networks deployment and operation. According to this contract one shared LTE network should be deployed for servicing subscribers of both companies in several regions of Russia.

During 2015, 2016 and 2017 scope of the projects has expanded: shared networks are deployed in 42 of 85 regions of Russia.

By the end of 2019 we had 7,626 LTE base stations shared with VEON Ltd. (VimpelCom) in 22 regions and VEON Ltd. (VimpelCom) had 5,816 LTE base stations shared with MTS in other 20 regions of Russia. Total amount of shared infrastructure nodes is 13,442 base stations servicing in 800 MHz, 1800 MHz and 2600 MHz bands FDD&TDD networks.

In addition to network deployment investments and operational costs savings target architecture of the site sharing project includes frequency resources shared usage: by the end of 2019 networks in 19 regions of Russia run in shared 2600 band spectrum usage mode (MOCN concept). In December 2019, MTS sent a termination notification to VEON Ltd. (VimpelCom) relating to intention to end the project in 7 regions of Russia.

Network Infrastructure and Frequency Allocation

We use switching and other network equipment supplied by Nokia Solutions and Networks, Ericsson, Huawei, Alcatel-Lucent, Samsung and other major network equipment manufacturers.

In Moscow and Moscow region license area, we have been allocated frequencies spanning 2×12 MHz of spectrum in the 900 frequency band and 2×24.8 MHz of spectrum in the 1800 frequency band for operation of a dual GSM 900/1800 network and UMTS900 network, LTE900 and LTE1800 networks. In St. Petersburg and the Leningrad region, we have been allocated frequencies spanning 2×9.8 MHz of spectrum in the 900 frequency band (including 2×1.6 MHz in the E-GSM band) and 2×18.6 MHz of spectrum in the 1800 frequency band for operation of a dual GSM 900/1800 network, UMTS900 network, LTE900 and LTE1800 networks.

We have different amounts of spectrum in the 900 MHz band for GSM 900 and UMTS and LTE networks and in the 1800 MHz band for GSM and LTE networks in almost every region of the Russian Federation.

We have been allocated frequencies 1950-1965 MHz, 2010-2015 MHz and 2140-2155 MHz for UMTS and LTE network deployment for the entire territory of the Russian Federation.

In addition, we have been allocated frequencies 453-457,4 MHz/463-467,4 MHz for IMT-MC and LTE networks and 1920 - 1935 MHz/2110 - 2125 MHz for UMTS and LTE networks in Khanty-Mansi Autonomous Okrug and Republic of Bashkortostan.

We have been allocated frequency bands 2540-2550 MHz and 2660-2670 MHz spanning 2×10 MHz and frequency bands 798.5-806 MHz and 839.5-847 MHz spanning 2×7.5 MHz for LTE FDD network deployment for the entire territory of the Russian Federation. In addition, we have been allocated frequency band 2595-2620 MHz spanning 25 MHz for LTE TDD network deployment for the entire territory of the Russian Federation.

We believe that we have been allocated adequate spectrum in each of our license areas.

Network Infrastructure—Virtual Infrastructure

The following projects have been launched in 2019:

- SCEF (Service Capability Exposure);
- U2020 in North-West macroregion;
- HP Apple Entitlement Server;
- POC (Proof Of Concept) video optimization;
- POC Service Chaining.

The following projects have been finished in 2019:

- IMS (IP Multimedia Subsystem), 3rd stage;
- PCRF (Policy and Charging Rules Function);
- DPI (Deep Packet Inspection) was expanded.

Two new multi-purpose modules of data-center started operating in Nizhny Novgorod for deployment of virtual platforms for telecommunication services and cloud services in 2019. We have started construction of a new data-center in Saint Petersburg in 2019.

Network Infrastructure—Energy Infrastructure

One of the main goals in Energy Infrastructure is to decrease operational costs for electric energy.

According to legislative acts of Russian Federation electric energy payment categories were introduced in 2012. This payment category can be chosen by a consumer in a case of introduction electric energy accounting system, which allows hourly monitoring of electric energy usage and reporting to energy company with accepted procedure.

Considering these conditions we decided to deploy Electric Energy Accounting Automatic System (EEAAS). According to this trial projects of different EEAAS solutions were executed in different regions of Russia (Moscow, Nizhny Novgorod, Vologda, Saint Petersburg, Novosibirsk, Ekaterinburg and Republic of Karelia) in 2014-2015.

EEAAS deployment projects was accepted in 2016 based on the analysis of those trials, System implementation started in 2016.

Introduction of the EEAAS will allow to:

- Reduce electricity payments and thus reduce operational costs;
- Increase level of precise accounting;
- Implement energy usage management and control; track energy usage dynamics.

The project implementation leads to reduction of payments for the electric energy: economy in 2019 reached 59,741 million rubles in the regions where it was deployed EEAAS in 2018.

Base Station Site Procurement and Maintenance

The process of obtaining appropriate sites requires that our personnel coordinate, among other things, site-specific requirements for engineering and design, leasing of the required space, obtaining all necessary governmental permits, construction of the facility and equipment installation. In Russia, we use special radio planning tools supplied by TEOCO Corporation and radio propagation models supplied by Siradel SAS to assess new sites so that the network design and site development are coordinated. This software can create digital cellular coverage maps of our licensed areas, taking into account the peculiarities of the urban landscape, including the reflection of radio waves from buildings and moving automobiles and supports all necessary technologies, such as 2G, 3G, LTE and NB-IoT. To use these tools more effectively we purchase high quality 3D digital maps for more precise planning. Used together, these software tools enable us to plan base station sites without the need for numerous field trips and on-site testing, saving us considerable time and money in our network build-out.

Base station site contracts are essentially cooperation agreements that allow us to use space for our base stations and other network equipment. The terms of these agreements range from one to 49 years, with the term of the majority of these agreements being one to five years. Under these agreements, we have the right to use premises located in attics or on top floors of buildings for base stations and space on roofs for antennas. In areas where a suitable base station site is unavailable, we construct towers to accommodate base station antennas, mainly on leased plots of land. We anticipate that we will be able to continue to use our existing GSM 900 base station sites and to co-locate GSM 1800, UMTS 2100 and UMTS 900 base stations at some of the same sites. In 2019, we continued to rollout LTE network and started the large-scale development of LTE 1800 network, the latter amounted to 85% of the newly installed LTE base stations. In 2018, we started the NB IoT technology. By the end of 2019 NB IoT technology was implemented on 31,083 stations of LTE.

Network Monitoring Equipment

We constantly control and monitor the performance of our network, call completion rate and other major key technical performance indicators. We use monitoring systems to optimize our network and to locate and identify the cause of failures or problems, and also to analyze our network performance and obtain network statistics. We have agreements with different suppliers for technical support services that allow us to obtain their assistance in trouble shooting and correcting problems with our network within the warranty period.

To provide high quality service to our subscribers in Russia, we have a global network operation center (“GNOC”) in Krasnodar and additionally a local operation and maintenance center in Voronezh which takes the form of outsourcing partnership with Nokia Solutions and Networks. The GNOC experts and a staff of the local operation and maintenance center have the technical ability to monitor network problems and unusual situations online in all regional branches of MTS in Russia around the clock. Our maintenance department, staffed 24 hours per day, performs daily network integrity checks and responds to reported problems. Our technicians inspect base stations and carry out preventative maintenance at least once every six months.

The GNOC in Krasnodar allows us to centralize such functions as monitoring and controlling of equipment, network planning and optimization, and also helps to solve incidents related to service interruptions. The GNOC strengthens our network’s reliability and safety, as well as creates the necessary conditions to launch and implement new technologies and network standards.

In November 2015, a Global Fixed Network Operation Center (“GFNOC”) was launched in Nizhny Novgorod, thus completing the centralization process of the MTS mobile and fixed network management. The GFNOC combined functions of monitoring and controlling the equipment in 54 regions of Russia where we offer broadband Internet access, TV and fixed line telephony services. For the subscribers connected to these services the GFNOC acts as a single entry point for technical support. Under the GFNOC project a centralized unit was also set up which is responsible for the quality of the services provided to corporate customers with bundled packages of mobile and fixed communications. Our subsidiary company MGTS performs these functions in Moscow region of Russia.

With the Global Fixed Network Operation Center deployed, we put together all resources for management of the quality of provided mobile and fixed line voice services, data transmission via mobile and fixed networks, leased dedicated digital circuits and VPN channels and digital TV.

In 2016, we also opened satellite TV operation and maintenance center in Moscow, which is used for monitoring head-end station and satellite TV services.

Our networks in Armenia and Belarus are monitored by our local operation and maintenance centers in each country. In addition to the monitoring of network performance, those centers analyze network quality parameters, provide troubleshooting, regular and extraordinary reporting to the management and our headquarters.

The handling of any significant network problems and outages is monitored and coordinated at our headquarters, where we also manage the cross- functional coordination of our networks in all countries of operation.

Our principal suppliers are Huawei, Iskratel, Oracle - PSTN switching equipment and SBC; Ericsson, Harmonic, SumaVision, Cisco Systems - equipment of Digital TV station; Irdeto, Verimatrix - CAS TV systems; MediaKind, Huawei - Hybrid TV platform; Cisco Systems, Huawei, D-Link, Fibercom, EdgeCore - FTTB core and access; Juniper Networks, Huawei, ECI Telecom, Tellabs and Alcatel Lucent for transport network equipment.

All of our equipment is supplied directly through authorized dealers.

Interconnect Arrangements and Telephone Numbering Capacity

We operate various types of communications networks, including mobile cellular, DLD/ILD and local fixed line and zonal fixed line networks.

Cellular operators must interconnect with fixed zonal, wireless, long distance and international telephone operators to obtain access to their networks and, via these operators, to the networks of other operators around the world. Cellular and fixed line operators must also obtain telephone numbering capacity to allocate to their subscribers. There are two categories of telephone numbers: “federal” 11-digit numbers (non-geographical numbering plan for cellular operators) and “local” seven-digit numbers (geographical numbering plan for fixed-line operators which can also be used as additional numbering capacity for mobile operators). In Moscow, both “federal” and “local” numbers have been used in the 11-digit format since the beginning of 2011. We have entered into various agreements for the provision of local telephone numbering capacity with several local telecommunications operators in Moscow and in other regions of Russia. We have also built our own local networks in certain cities within Russia (including Moscow) to provide local telephone numbering capacity to our subscribers. Telephone numbering capacity is allocated by the government and we provide interconnect services to other operators in all regions of Russia. Our fixed line zonal and local networks in Russia are interconnected with other operators. Zonal/local interconnect typically entails payment of a one-time connection fee per point of interconnect (“E1”) and a usage charge based on minutes of traffic. Operators with a Substantial Market Power may also charge a guarantee monthly usage fee in case traffic is less than 30 kmin per E1.

The Ministry of Communications and Mass Media has allocated special numbering codes for federal 11-digit telephone numbers on a non-geographical basis to all the cellular operators. We believe that sufficient numbering capacity has been allocated to us for the development of our network. However, a combination of regulatory, technological and financial factors has led to the limited availability of local 7-digit telephone numbering capacity in Moscow and the Moscow region. Moscow’s “495” code and the Moscow region’s “496” code have already reached numbering capacity limits. As a result, the new “499” code was introduced in order to increase the Moscow numbering capacity, the “498” code was introduced to increase Moscow region numbering capacity and since 2011 “local” numbers have been used in Moscow in 11-digit format.

To meet subscriber’s demand and provide for an adequate inventory of numbering capacity, we previously entered into contracts with local fixed line providers for allocation of numbering capacity to us. However, the Ministry of Communications and Mass Media subsequently took the view that numbering capacity assigned to one operator could not be rented to other operators. Accordingly, we have entered into arrangements whereby fixed line operators make their numbers available to our subscribers via agency contracts between the subscribers and us acting on behalf of such fixed line operators. Our right to use numbering capacity ranges for an unlimited period of time. As a result of our merger with Comstar, we have decreased the use of local numbering capacity of other operators. As of December 31, 2019, we had numbering capacity (federal and local) for approximately 34.68 million subscribers in the Moscow license area.

To provide our subscribers in Russia with DLD/ILD services, we have interconnect agreements with national operators Rostelecom, MTT (an affiliate of Sistema until March 18, 2009), VEON Ltd. (VimpelCom) and other national transit operators. We have also built and operate our own DLD/ILD network, which allows us to interconnect directly to foreign operators and thereby decrease our interconnect costs. Most interconnect fees for connecting users of other operators’ fixed line and wireless networks to our network are based on a one-time connection fee and usage by minute which varies depending on the destination called.

Russian legislation provides that fixed line operators with a substantial market power cannot refuse to provide interconnect or discriminate against one operator in relation to another, and the interconnect rates of operators with a Substantial Market Power are regulated by the government. See “Item 4. Information on Our Company—B. Business Overview—Regulation of Telecommunications in the Russian Federation—Regulation in the Russian Federation—Competition, Interconnect and Pricing” and “Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business—If we cannot interconnect cost-effectively with other telecommunications operators, we may be unable to provide services at competitive prices, which may diminish our market share and result in a loss of revenues and margins.”

Interconnect and traffic transit between the networks of mobile operators in Russia occurs through direct channels connecting the switches of the different mobile operators within the same city; through the network of transit long distance operators, which connect the networks of different mobile operators in different cities or through our own DLD/ILD network. For domestic long distance traffic transit we use our DLD/ILD network and networks of different national operators, including among others: MTT, Rostelecom and VEON Ltd. (“VimpelCom”). For ILD traffic transit we primarily use our DLD/ILD network which is interconnected with 52 international carriers. We also have an interconnect between the DLD/ILD MTS network and the ILD networks of our subsidiary, MTS Armenia, in order to provide transit for international traffic.

Handsets

Nearly all of our handset sales consist of tri-band GSM 900/1800/1900 and dual-band UMTS 900/2100 handsets, except for certain models in the low cost segment. Those handsets, which function in the GSM 900, GSM 1800 and PCS-1900 standards, provide users with greater automatic roaming possibilities in Russia, Europe, the United States and Canada. All LTE handsets support bandwidth LTE-FDD 2100 MHz (band 1), LTE-FDD 1800 MHz (Band 3), 2600 MHz (Band 7), LTE-FDD 900 MHz (band 8), 800 MHz (Band 20) and LTE-TDD 2600 MHz (band 38), also there are smartphones in our sales with LTE Advanced support. In 2019, we continued the process of implementation Voice over LTE and Wi-Fi Calling functions.

From 2009, RTC, our wholly-owned subsidiary, started handling all functions relating to our retail operations, including the purchase and sale of handsets and accessories and subscriber enrollment at our retail outlets. RTC has entered into arrangements with Apple, Samsung, Oppo, Vivo, Nokia, Alcatel, Xiaomi, Philips, Huawei, Honor and others to purchase handsets. In 2019, we continued our cooperation with A-brand smartphone vendors. We also offer an array of mobile telephone accessories. Since 2009 we have been successfully selling MTS branded phones.

Fixed Line Services

We offer fixed-line communications services in 56 regions across Russia, covering a population of about 25 million households.

Our other fixed line operations include the following communications services: voice, data and broadband Internet and pay TV services for corporate and residential subscribers, as well as the provision of interconnect services to other communications operators and numbering capacity to their subscribers. Based on TMT Consulting data, as of December 31, 2019, we were the largest operator in the Moscow residential broadband market in terms of subscribers, with a 37% market share. We also operate in Armenia, where we provide digital telephony communications services, data transmission, Internet access and the renting of channels.

As of November 30, 2019, we provided fixed-line communications services in Ukraine. On December 3, 2019, we completed the transaction to sell our telecommunications operations in Ukraine to Telco Solutions and Investments LLC, controlled by telecommunication company Bakcell LLC. For details on the sale, please see “Item 4. Information on our Company—A. History and Development” and Note 10 to the consolidated financial statements.

For a list of the telecommunications licenses held by us, see “Item 4. Information on Our Company—B. Business Overview—Licenses.”

Customers and Services Offered—Moscow Fixed Line Operations

We provide fixed line communications services through our subsidiary, MGTS, which is the incumbent fixed line PSTN operator in Moscow. MGTS owns Moscow’s PSTN infrastructure, including switches, a transmission network, underground ducts, and owns or holds leases to properties housing its offices and equipment.

As of December 31, 2019, MGTS had approximately 3.76 million active lines in service, a cable network of over 47,134 km, a fiber optic network of over 42,973 km and 1,930 payphones. Currently, MGTS has focused its efforts on the deployment of GPON, IP/MPLS technologies and an IMS core. The old SDH equipment is being removed which results in the decreased number of E1 streams, a reduction in the copper network and the respective extension of the fiber optic network. MGTS also develops new services for IP TV, and MVNO as the convergent service for mobile and fixed telephony.

The total installed capacity of the telephone network reached 0.683 million numbers on the TDM area (Time Division Multiplexing) and 5.18 million numbers on the IMS area (IP Multimedia Subsystem) as of December 31, 2019.

Moscow fixed line operations customers consist of the following subscribers:

<u>Moscow fixed line operations</u>	<u>December 31, 2019</u>	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Residential subscribers	84%	84%	83%
Corporate subscribers	8%	8%	8%
Public sector subscribers	8%	8%	9%

MGTS holds licenses and regulatory approvals to provide, among others, the following services:

- local telephony;
- DLD/ILD voice telephony through licensed DLD/ILD operators, including us;
- interconnect to other operators;
- Internet and data transmission, including leased DLD/ILD services;
- IP TV for B2C and B2B subscribers;
- MVNO mobile telephony and Internet;
- inquiry and information, including telephone directories;
- local telephony with use of payphones;
- telematic communications services;
- telecommunications services associated with providing of communication channel;
- telecommunications services associated with voice data transmission;
- telecommunications services associated with cablecasting;

- movable radiotelephony services; and
- measures and (or) services for the protection of State secrets;
- capital construction projects engineering.

As the only licensed PSTN operator in Moscow, MGTS is considered a natural monopoly under Russian antimonopoly regulations. Consequently, substantial part of services provided by MGTS are subject to governmental regulation. The Federal Antimonopoly Service of the Russian Federation regulates MGTS' tariffs for voice telephony services provided to its PSTN subscribers, including monthly subscription fees, installation fees and local call charges. Revenues from regulated services are accounted for approximately 33% of service operating revenues of our Moscow fixed line operations in 2019, 37% in 2018 and 41% in 2017. The percentage decline is connected with gradual growth of operating revenues from non regulated services as a proportion of the overall operating revenues in 2019, 2018 and 2017. The Federal Antimonopoly Service of the Russian Federation sets the tariffs MGTS can charge taking into account cost of services, network investment and a certain profit margin, and the current tariffs fully compensate MGTS for the cost of services provided to residential and government subscribers. According to Russian legislation, MGTS is allowed to petition the Federal Antimonopoly Service of the Russian Federation for tariff increases upon certain conditions, such as inflation or increases in the cost of services. Historically, MGTS has petitioned the relevant Russian government agency for tariff increases once per year. The Federal Antimonopoly Service of the Russian Federation has permitted MGTS to increase its tariffs several times.

MGTS also provides a number of unregulated services. According to Russian legislation, DLD/ILD services provided by licensed non monopoly operators, data transmission services, value added services and a number of other services are not subject to tariff regulation. Among others, MGTS provides the following unregulated services:

- various value-added services, including call forwarding, call waiting, call holding, caller ID, provision of second direct inward dialing (DID) number;
- Internet access for residential subscribers and corporates;
- IP TV for B2C and B2B subscribers;
- MVNO mobile telephony and Internet;
- alarm signaling;
- domestic maintenance services, including electric installation, sanitary engineering, cleaning, computer emergency, and consumer electronics installation;
- video-surveillance; and
- rent of space for telecommunications equipment of other operators connected to MGTS' network.

MGTS does not have license to provide DLD/ILD communications services directly to its subscribers but must route such traffic through a licensed DLD/ILD operator. As a result, DLD/ILD traffic originated by MGTS subscribers is carried either by us, with these services included in MGTS' monthly bill, or by other providers of DLD/ILD services, who bill MGTS subscribers directly or pay MGTS an agency fee for processing their bills.

The following table presents certain operating data for our Moscow fixed line operations as of and for the years ended December 31, 2019, 2018 and 2017.

<u>Moscow fixed line operations</u>	<u>December 31, 2019</u>	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Installed telephone lines on TDM (000s) ⁽¹⁾ . .	0,683	1,050	2,750
Installed telephone lines on IMS (000s) ⁽¹⁾ . . .	5,180	5,180	5,180
<i>Residential</i>			
Number of subscribers (000s)	2,684	2,686	3,012
CPP traffic (millions of minutes)	240	307	399
<i>Corporate⁽²⁾</i>			
Number of active lines (000s)	525	561	612
Number of subscribers (000s)	46	49	52
CPP traffic (millions of minutes)	205	248	301

(1) Telephone lines on TDM and IMS can be installed at one household.

(2) Includes state-owned enterprises and government agencies.

MGTS' subscriber segments and the services provided to each subscriber segment are further described below.

Residential and corporate subscribers

MGTS provides basic regulated voice services to residential and corporate subscribers using its PSTN facilities and copper or optical "last mile" access.

In addition to basic voice services, MGTS provides its residential and corporate subscribers with digital telecommunications services, Internet, IP TV, MVNO mobile telephony and Internet and VPN deployment services, rental of high-speed communication channels, intelligent voice and various other services.

The following table illustrates MGTS' regulated tariff development:

<u>MGTS Regulated Tariffs</u>	<u>March 1, 2020</u>	<u>March 1, 2019</u>	<u>March 1, 2018</u>
<i>Residential⁽¹⁾</i>			
Line rental			
RUB per month	214	214	205
Per minute tariff plan—local connection fee			
RUB per minute	0.60	0.60	0.60
Unlimited tariff plan—connection fee (unlimited connection)			
RUB per month	299	294	294
Combined tariff plan—fee for fixed amount of minutes ⁽²⁾			
RUB per month	224	224	224
Combined tariff plan—fee for each additional minute			
RUB per minute	0.58	0.58	0.58
Combined tariff plan-fee for fixed amounts of minutes ⁽³⁾			
RUB per month	28	—	—
Combined tariff plan-fee for each additional minute			
RUB per minute	0.59	—	—
<i>Corporate (non-governmental)⁽¹⁾</i>			
Line rental			
RUB per month	225	225	220
Per minute tariff plan—local connection fee			
RUB per minute	0.60	0.60	0.60
Unlimited tariff plan—connection fee (unlimited connection)			
RUB per month	416	416	416
Combined tariff plan—fee for fixed amount of minutes ⁽²⁾			
RUB per month	224	224	224
Combined tariff plan—fee for each additional minute			
RUB per minute	0.58	0.58	0.58
<i>Corporate (governmental and state-funded organizations)⁽¹⁾</i>			
Line rental			
RUB per month	215	215	215
Per minute tariff plan—local connection fee			
RUB per minute	0.60	0.60	0.60
Unlimited tariff plan—connection fee (unlimited connection)			
RUB per month	416	416	416
Combined tariff plan—fee for fixed amount of minutes ⁽²⁾			
RUB per month	224	224	224
Combined tariff plan—fee for each additional minute			
RUB per minute	0.58	0.58	0.58

(1) Tariffs for residential subscribers are shown including VAT; tariffs for non-governmental corporate subscribers and governmental/state-funded organizations are shown excluding VAT.

(2) The plan included 400 minutes per month.

(3) This plan included 50 minutes per month.

Operators

MGTS provides interconnect, traffic transmission and leased line services to other communications operators. Interconnect is carried out on the local and zonal levels in accordance with terms and conditions that are publicly disclosed. MGTS also provides additional services to operators interconnecting to MGTS' network, including access to emergency service, information and customer care numbers.

MGTS has also established an active presence in the data transmission market. Through its PDTN, MGTS can establish VPNs for other operators as well as provide other data network services. Operators can also rent space and utility systems from MGTS to house their network equipment.

Customers and Services Offered—Other Fixed Line Operations

We provide fixed-line communications services to corporate, operator and residential subscribers in 56 regions throughout Russia. Specifically, we offer local voice, DLD/ILD voice, data and Internet and pay TV services to our subscribers. Some of the interconnect tariffs we charge other telecommunications operators for in Moscow and certain other cities are regulated by the Russian government. We believe our fixed-line subscribers typically evaluate our service and product offerings based on such factors as price, technology, security, reliability and customer service.

The following table presents certain operating data for our other fixed line operations in Russia as of and for the years ended December 31, 2019 and 2018.

<u>Other fixed line operations</u>	<u>December 31, 2019</u>	<u>December 31, 2018</u>
<i>Residential</i>		
Number of subscribers (000s) ⁽¹⁾	2,724	2,827
<i>Corporate</i> ⁽²⁾		
Number of subscribers (000s)	96	104

(1) Subscribers to broadband Internet, pay-TV, Wi-Max, voice and other services.

(2) Includes state-owned enterprises and government agencies.

Corporate subscribers

We target corporate subscribers covering a range of industries, such as business centers, hotels, financial institutions, professional services firms, consumer goods companies, manufacturers and companies involved in extractive industries, among others. These subscribers vary in size, ranging from large multinational and Russian corporations with thousands of employees to small and medium sized enterprises with up to several hundred employees. As of December 31, 2019, we had approximately 30,000 voice and 56,000 Internet corporate subscribers.

As further described below, we offer voice, data transmission and Internet and various value added services to our corporate subscribers.

Voice Services. We provide a full range of other fixed line voice services to corporates in Moscow, the Moscow region and other selected regions of Russia, which include local, zonal, and DLD/ILD services using our transmission network and leased capacity between major Russian cities. We also provide integrated voice and data services, voice over frame relay and certain integrated services digital network ("ISDN") services.

Data Transmission and Internet Services. We offer high quality data transmission services to corporates, which allow for data exchange between their various branches or offices located within Russia and internationally. For data transmission services, our network is capable of transferring data at speeds of up to 10 Gbps and utilizes various technologies, such as 10 GE, GE, ATM, TDM, VPN MPLS/VPLS, GPON, Microwave radio relay (“MRR”), xDSL, LTE and Wi-Fi to provide high quality solutions at a relatively low cost. We endeavor to ensure the reliability of network connections by utilizing a full reservation approach to back up all elements of the network.

In addition, we offer a wide range of Internet services to corporates, including broadband Internet access, VoIP, VPNs and data center services using the following technologies: (1) NGN (up to 10 Gbps), (2) GPON (up to 1 Gbps), (3) xDSL (up to 100 Mbps), (4) radio Ethernet (up to 300 Mbps), (5) MRR (up to 1 Gbps), (6) Wi-Fi (up to 600 Mbps), and (7) LTE (up to 100 Mbps). We also provide continuous flexibility to upgrade their network capacity to handle additional Internet services. For example, we often integrate data transmission and Internet services for our clients as they expand their operations and need to interconnect and exchange data with newly opened offices and/or branches.

We also provide security services, such as Anti DDoS protection and various AntiVirus solutions.

We offer a broad range of Internet packages that vary in terms of data transfer speeds and pricing, with higher tariffs for faster uploading and downloading capabilities. Corporates with GPON broadband Internet packages generally experience data transfer speeds between 1 Mbps and 1 Gbps. In addition, we offer a premium broadband Internet service over our NGN in which subscribers enjoy data transfer speeds between 1 Mbps and 10 Gbps. The NGN provides subscribers with the benefit of the same uploading and downloading data transfer speeds, whereas Internet subscribers using an xDSL/GPON connection upload at speeds that are much slower than the one at which they can download.

We also utilize MGTS’ PDTN to provide high speed reliable Internet services and create VPNs for our corporates.

Leased Channels. We provide corporate clients with the ability to rent high speed data channels. These “leased channels” are dedicated lines of data transmission.

Value Added Services. We provide corporates with several value added services, including Autosekretar and integrated solutions. The Autosekretar service is based on our proprietary IN and is designed to help our corporates manage the reception and servicing of a large volume of incoming calls. The unique multi channel telephone number assigned to customers will not change even if the customer moves to a different location in Moscow, and does not require the customer to install any equipment. In addition, this service allows all incoming calls to be transferred to other fixed or mobile telephone numbers in Russia or in other countries. The IN identifies a subscriber by phone number, phone card or password, which allows our customers to bill their subscribers for services and, if necessary, block access for subscribers who have a negative balance on their account.

In addition, we serve as general contractor for the provision of a full range of integrated solutions to subscribers wishing to establish a modern integrated communications infrastructure. Each solution is customized for subscriber specific needs. In developing these customized networks, we are able to offer the following range of services: site survey, cost analysis and optimum project planning, assistance with government related documentation, supply of equipment and operational, technical and maintenance support on an ongoing basis. Once the infrastructure is established or renovated, as the case may be, we typically provide digital voice communications, voice intelligent services, high speed Internet services, videoconferencing and other data transmission services. We intend to expand our service offerings to include customer premises management and network centric IT solutions.

Fixed mobile convergence. Based on our fixed and mobile networks, we offer fixed to mobile convergence services to corporate clients providing use of their mobile phone as an extension of their private branch exchange (“PBX”). We also provide access to corporate IP networks from a mobile phone via GPRS/EDGE/3G/4G.

Operators

We operate fixed line local and zonal networks in Moscow and other cities for provision of telephony services to fixed line subscribers and additional local numbers to mobile subscribers. In order to lower the costs of intercity and international traffic transition, we put into operation an intercity international network in December 2008.

According to our estimates, together with MGTS, we had approximately 77% of the total active numbering capacity in Moscow as of December 31, 2019. We had approximately 204 local fixed nodes in 62 regions of Russia, including Moscow, and 40 zonal fixed networks to provide telephony services to subscribers as of December 31, 2019. Our integrated intercity/international network is interconnected to more than 52 international operators. As of December 31, 2019, we had total more than 1,660 interconnect agreements with national and international operators for interconnection of our networks, including fixed, mobile and Intercity/International networks.

Residential subscribers

We offer voice, Internet and pay TV services to residential subscribers.

Voice Services. We provide voice services to residential and corporate subscribers. Like corporate subscribers, residential subscribers in each of regions of presence seek a full range of high quality voice services equivalent to those provided in Western Europe. In addition to “basic” voice telephony services, we provide a number of additional services, such as call forwarding, call transferring, call waiting, conference, voicemail and Caller ID, among others.

Internet Services. We offer broadband Internet services to residential subscribers throughout Russia. As of December 31, 2019, we had 10% market share in the Russian Federation together with Moscow where we had a 37% share, based on TMT Consulting data. Depending on the Internet connection speed, we charge residential subscribers a subscription fee of RUB 499 RUB 1,499 per month in Moscow and a subscription fee of RUB 190 RUB 1,290 in other regions of Russia. We do not charge a connection fee in Moscow and in most of the Russian regions.

Pay TV. We operate a TV service based on IPTV service over ADSL and GPON technologies in Moscow. In addition, we offer pay TV services based on DVB C (digital television via cable connection), analog cable transmission and MMDS (wireless cable) technologies in most of the regions in which we are present. Since November 2013, we connect our subscribers only to the TV with digital quality and since 2017 we broadcast in 4K ultra HD quality. Special auxiliary equipment (set top box) allows pay TV subscribers to access more than 170 channels of digital quality, including 40 channels of HD quality from a home television and 4 channels of 4K ultra HD quality. International and Russian channels are included as part of the base services package.

Our pricing structure is designed to appeal to large numbers of consumers with various interests and purchasing power, and varies significantly between regions. We charge a subscription fee between RUB 120 RUB 299 per month in Moscow and a subscription fee of between RUB 200 RUB 460 in other regions of Russia, depending on the number of channels included in the package. We also offer bundled Internet, pay TV and Internet, Mobile, pay TV services for RUB 449 RUB 1,099 per month in Moscow and RUB 240 RUB 2,250 in certain other regions of Russia, depending on the speed of the Internet connection, the number of pay TV channels being provided and level of competition in a particular region. In 2019, convergent bundles, that included Internet, TV and mobile services, had been developed rapidly. As a result we have acquired more than 263 thousand unique customers and achieved overall growth of convergent subscriber base up to more than 450 thousand subscribers in 49 regions (excluding Moscow), as of December 31, 2019.

Sales and Marketing

Moscow fixed line operations

In 2019, MGTS continued monetization of its own high tech fiber optic network GPON and developed combining different services in packages, including convergent packages of mobile and fix services and online cinemas subscriptions. Promotional packages were offered to clients and included basic services, online cinemas subscriptions and high-speed Internet access. In order to expand and consolidate its market share, MGTS continued to enter the Moscow Region market through the construction of its own network, as well as through acquisition of local Internet service providers.

By the end of 2019, 2.08 million subscribers were transferred to GPON. In 2020, MGTS plans to develop and implement new services as part of the concept of Smart Home and Smart City, participate in the cloud solutions market more actively, develop partnerships with delivery services and become a partner of iconic city projects.

Other fixed line operations

Our target customers include corporate, operator and residential subscribers.

To promote our product and service offerings, we use various communication channels for advertising and marketing, including direct marketing, printed mass media, television, Internet, radio, directories, outdoor advertising, advertising in the subway, special promotions and cross promotions. Through these various advertising and marketing channels, we intend to further develop our brand recognition. Our marketing strategy is designed to create a unified brand for each of our various product and service offerings with the aim of becoming a single source for all of our subscribers' communications needs.

We also actively promote our services to existing subscribers with special bundled product offerings aimed at servicing their communication requirements and enhancing subscriber loyalty. Our advertising and marketing materials are aimed primarily at the promotion of MTS brand. All fixed line products are offered and marketed under this brand. However, when we enter new markets and acquire companies, we have to use both brands in advertising MTS brand and the acquired brand. This is done to decrease churn as customers tend to express strong loyalty towards local brands. We then gradually decrease presence of the acquired brand and this allows us to make MTS a market leader in a given region in future. Our advertising and marketing efforts are designed to convey a positive image of us to the market as a leading communications operator focused on customer satisfaction.

Competition

We compete with a number of fixed line telecommunications operators servicing Moscow, St. Petersburg and other major Russian cities. Moscow is the largest and most competitive of these markets. Our primary competitors include:

- Rostelecom, Russia's largest national fixed line telecommunications operator with presence in all Russian regions. We compete with Rostelecom in the corporate, operator and residential fixed line telecommunications markets in all regions where we operate in Russia. We also compete with Rostelecom in the mobile telecommunications market.
- ER-Telecom, voice telephony, broadband and TV operator. We compete with ER-Telecom in the corporate and residential fixed line telecommunications market in St. Petersburg, Novosibirsk, Omsk, N.Novgorod, Ekaterinburg, Kazan, Novosibirsk, Chelyabinsk and other regions.
- VEON Ltd. (VimpelCom), which is also one of our primary competitors in the Russian mobile communications market, offers voice, data and Internet services to corporates, operators and residential subscribers in major cities throughout Russia, Ukraine, Kazakhstan and Uzbekistan. We compete with VEON Ltd. (VimpelCom) in the corporate, operator and residential fixed line telecommunications markets in Moscow and in certain other regions of Russia where we are present, including, among others, St. Petersburg, Rostov, Nizhny Novgorod, Ekaterinburg and Krasnodar.
- MegaFon, which acquired operators Synterra and Net by Net, and offers services in the operator, corporate and residential fixed line telecommunications markets in Moscow, St. Petersburg, and other regions.
- Akado Group, provider of pay TV, broadband Internet and digital telephony in Moscow. We compete with the Akado Group primarily in the residential fixed line telecommunications market of Moscow.

Corporate subscribers

The following table sets forth the corporate subscriber market shares of the primary fixed line operators in Moscow as of December 31, 2019:

MTS	22%
VEON Ltd. (VimpelCom)	17%
Akado	6%
Rostelecom	18%
Other	37%
Total	100%

Source: TMT Consulting.

In the corporate subscriber segment, we generally compete on the basis of network quality, individual and bundled service offerings, customer service, installation time, geographical presence and pricing.

Residential subscribers

Voice services

According to TMT Consulting, as of December 31, 2019, fixed-line voice services' penetration was 30% in Russia. The following table sets forth the market shares of the primary fixed line operators for voice services in Russia as of December 31, 2019:

<u>Company</u>	<u>Russia</u>
MTS	17%
Rostelecom	75%
Other	8%
Total	100%

Source: TMT Consulting.

Internet

According to TMT Consulting, as of December 31, 2019, broadband Internet penetration of households was 60% in Russia. The following table sets forth the market shares of the primary operators in the residential broadband Internet market in Russia as of December 31, 2019:

<u>Company</u>	<u>Russia</u>
MTS	10%
VEON Ltd. (VimpelCom)	8%
ER-Telecom	11%
Rostelecom	36%
Other	35%
Total	100%

Source: TMT Consulting.

Pay-TV

According to TMT Consulting, as of December 31, 2019, pay TV penetration was 79% in Russia. The following table sets forth the market shares of the primary operators in the TV market in Russia as of December 31, 2019:

<u>Company</u>	<u>Russia</u>
MTS	9%
Rostelecom	23%
Tricolor TV	27%
ER-Telecom	8%
Orion Express	7%
Other	26%
Total	100%

Source: TMT Consulting.

In the TV market, we generally compete on the basis of pricing, channel selection and content, individual and bundled service offerings, customer service and installation time.

Tariffs

We establish prices for our unregulated services and different subscriber segments based on certain common considerations, policies and goals. For example, we generally seek to establish competitive prices based on market rates for the services we offer and below market prices when our lower than average costs or economies of scale allow us to do so. We also offer subscribers bundled service packages with several services offered together at a discount to the cost of ordering each individual service separately and to promote additional services to our existing subscribers. In addition, we often offer promotions to our various subscriber segments waiving or discounting installation fees in order to attract new subscribers or promote new services.

With regard to corporates, we generally aim to derive the bulk of our operating revenues from monthly payments. Thus, depending on the scale and type of services ordered, we will often discount or waive installation fees.

For services offered to other communications service providers, we aim to generate most of our operating revenues from monthly payments and by offering an array of value added services.

Network Infrastructure

Network Infrastructure—Transmission Networks

Backbone and Internet Networks

Mobile, fixed and inter-carrier aggregated traffic increased in 2019: downlink (towards users) data throughput reached 4.83 Tbps (3.87 Tbps in 2018), uplink (from users) data throughput reached 1.51 Tbps (1.34 Tbps in 2018).

The size of MTS fiber-optic networks increased by 6,113 km in 2019 and reached 249,301 km in total.

Development of the backbone network in 2019:

- we started implementing the new backbone network architecture. We used Cisco NCS and Juniper PTX solutions, which significantly reduces the cost of the 100G port;
- we launched the backbone node in the “Avantage” data Center (the key MTS data center in the Moscow region);
- we launched the route Penza-Balashov-Saratov (optimization network latency); and
- we installed the SWAP backbone equipment along the route of the Baikal-Amur mainline (100G technology).

We launched the reserve route Moscow—Saint Petersburg (a route for delivering European traffic to the Central regions of Russia).

Convergent network

According to deployment plans, the following projects were executed in 2019:

- New MBH nodes were deployed: 2,029; replacement of obsoleted MBH equipment is ongoing;

- micro wave links were deployed: 4,646 (2,559 among it is unlicensed E-band links). According to transport network strategy evolution unlicensed in Russia E-band micro wave link was used for linking base stations (1 Gbps and above), E-band link share increased from 18.8% to 21.5% in 2019. In 2019 there are plans to use dual-band MW links. 10 Gbps E-band deployed at high loaded links. We continue the shared network deployment and links interchange projects with other operators and have signed the memorandum of understanding with respect to the potential projects. Memorandum defines a list of directions (parts of fiber-optic communication links) which are mutually interesting for both participants. Summarized length of provided communication links is approximately equal on both sides.

Most of the Management and monitoring systems are virtualized. Unified system for link facilities based on GE Small World solution is launched in production mode in the fourth quarter 2017.

As a part of evolution of IPBB (IP Backbone) network equipment modernization is ongoing. The projects assume replacement Cisco 7600 nodes for ASR9000 nodes due to an end of a support of 7600 nodes.

Satellite Network

In 2019 we:

- Performed preparation for works on integration of new perspective satellite communication systems with 5G / LTE / IoT networks;
- optimized the existing SCPC backbone and VSAT networks.

Public Switching Telephone networks (PSTN)

The network infrastructure we maintain in Moscow is substantially different to the infrastructures we use in the regions. In Moscow, primarily we have organically grown, while our regional development has largely been through the acquisition of companies with different business models and a focus on different services. As a result, the network infrastructures in the regions outside Moscow and the technologies used to support such infrastructures are different from the network infrastructure established in Moscow and which we currently own. Now telephone network in Moscow and Moscow region has a capacity of more than 1,080,000 telephone numbers.

All of our PSTN switching centers (TDM and Soft switch) are connected to a digital transport network, which uses SDH and IP technology. The network ensures connectivity with a digital equipment of PSTNs of other operators.

The SDH network will be operated to support existing clients, but we also provide the moving traffic and clients from SDH/TDM technology to IP.

The management of the transport network and digital PSTN is carried out remotely from network operation centers.

As of December 31, 2019, in Moscow and the Moscow region we had a wireless broadband network including 459 base and subscriber stations in the 5-6 GHz frequency band and also near 130 radio-relay lines in the 70-80 GHz frequency band.

For the provision of Internet access, IP-telephony and other services, we have our own IP network, the core of which is constructed as IP MPLS rings with routers connected to each other by means of 10 GE channels. In addition, separate routers are used for inter-carrier connections and are connected to the core routers by means of 10 GE interfaces.

Russia

As of December 31, 2019 we provided cable Internet access to about 9.9 million households and cable TV access to about 10.2 million households. The access equipment used are Ethernet switches, IP DSLAM and Optical Receivers. We mainly use FTTB technology for Internet (9.3 million households) and CATV access, which can provide speeds up to 1 Gb/s per building and about 250 channels CATV (analog and digital). In 2011, we started to roll-out DVB-C technology for a cable TV service. Currently, we have digital TV service (DVB-C&DVB-S2) in more than 190 cities and localities with 3.92 million of subscribers. In 2014, we started to roll-out an advanced hybrid TV service (DVBC/DVB-S2/IPTV+IP/VOD, CatchUp). By December 2017, we launched Hybrid TV platform with an IPTV commercial service in Moscow and other 10 regions, DVB-C/IP Hybrid commercial service in 95 regional cities and DVB-S2/IP Hybrid commercial service all over Russia. During 2019 in DVB-C and DVB-S networks we increased the number of broadcasted 4K/UHD channels using HEVC (H.265) format, which is now 4. Total number of connected hybrid TV users is approximately 0.64 million.

During 2019 we started preparation for migration from existing Hybrid TV platform to new unified TV platform.

In September 2019, we launched a new unified TV platform and started sales in OTT (mobile) TV segment with TV applications for smartphones, pads, Smart TV, Android-based STBs and PC browsers. Migration process for Hybrid IPTV, DVB-C, DVB-S segments is planned to start in the second quarter of 2020 and expected to be completed before the end of the 2020. Number of subscribers activated in OTT segment as of December 31, 2019 was 0.42 million.

In Moscow and regions as an Internet traffic supplier, we mainly use our own IP Backbone network.

The acquisition of Comstar provided us with an opportunity to use MTS fiber optic lines for fixed network development. Optical network construction in cities is carried out on the basis of fixed and mobile business needs. When we modernize and construct new networks, we deploy fixed and mobile equipment on the basis of “collocation” method

Principal suppliers

Our principal suppliers are: Huawei, Iskratel, Oracle-PSTN switching equipment and SBC; Ericsson, Harmonic, Summavision Teleste-equipment of Digital TV station; Irdeto, Verimatrix-CAS TV systems;MediaKind, Huawei-Hybrid TV platform; Cisco Systems, Huawei, Juniper-FTTB core; Cisco Systems, Alcatel, Coreant, Huawei, FiberHome, D-Link-FTTB aggregation-access.

All of our equipment is supplied directly through authorized dealers.

Seasonality

Our results of operations are impacted by certain seasonal trends. Generally, revenue is higher during the second and third quarter due to increase in roaming revenues and guest roaming revenues during these quarters. Quarterly trends can also be influenced by a number of factors, including new marketing campaigns and promotions, and may not be consistent from year to year.

Regulation of Telecommunications in the Russian Federation

Regulation in the Russian Federation

In the Russian Federation, the federal government regulates telecommunications services. The principal law regulating telecommunications in the Russian Federation is the Federal Law on Communications, which provides, among other elements, for the following:

- licensing of telecommunications services;
- requirements for obtaining a radio frequency allocation;
- equipment certification;
- equal rights for individuals and legal entities, including foreign individuals and legal entities, to offer telecommunications services;
- fair competition;
- freedom of pricing other than pricing by companies with a substantial position in public telecommunication networks; and
- liability for violations of Russian legislation on telecommunications.

The Federal Law on Communications came into force on January 1, 2004. The Federal Law on Communications creates a framework in which government authorities may enact specific regulations. Regulations enacted under the legislative framework in place prior to the enactment of the Federal Law on Communications continue to be applied to the extent they do not conflict with the Federal Law on Communications.

The Federal Law on Communications, which confers broad powers to the state to regulate the communications industry, including the allocation of frequencies, the establishment of fees for frequency use and the allocation and revocation of numbering capacity, significantly modifies the system of government regulation of the provision of communications services in Russia. In particular, licenses to provide communications services in territories where frequency and numbering capacity are limited may be issued only on the basis of a tender, whereas according to the Government Decree No. 480 dated May 24, 2014, licenses to provide communication services with frequency spectrum - only on auction basis. In addition, the Federal Law on Communications provides for the establishment of a “universal services reserve fund” which is funded by a levy imposed on all operators of public networks, including us.

Regulatory Authorities

The Russian telecommunications industry is regulated by several governmental agencies. These agencies form a complex, multi-tier system of regulation that resulted, in part, from the implementation of the Federal Law on Communications, as well as from the large-scale restructuring of the Russian government in March 2004 and subsequent restructuring in May 2008. See also “Item 3. Key Information—D. Risk Factors—Risks Relating to Our Countries of Operation—Political and Social Risks—Political and governmental instability in Russia and other countries of our operations could materially adversely affect our business, financial condition, results of operations and prospects and the value of our shares and ADSs.”

The Ministry of Digital Development, Communications and Mass Media of the Russian Federation is the federal executive body that develops and supervises the implementation of governmental policy in the area of communications and coordinates and controls the activities of its subordinate agencies. The Ministry has the authority to issue certain regulations implementing the federal law on communications and other federal laws.

The Federal Service for Supervision of Communications, Information Technologies and Mass Media is a federal executive body that supervises and controls certain areas of communications and information technologies, including:

- the issuance of licenses and permissions in the area of communications and information technologies;
- the registration of radio-electronic and high-frequency equipment;
- the assignment of radio frequencies based on decisions taken by the State Radio Frequencies Commission and registration of such assignments;
- the technical supervision of networks and network equipment throughout Russia;
- the monitoring of compliance by network operators with applicable regulations, terms of their licenses and terms of the use of frequencies allocated and assigned to them;
- the enforcement of equipment certification requirements;
- the examination of electromagnetic compatibility of equipment with existing civil radio-electronic equipment;
- the organization of tenders with respect to licenses in the sphere of communications;
- the control of activity in processing of personal data; and
- creation, building and maintenance of a unified automated information system Unified Register of Domain Names, Internet Website Page Locators and Network Addresses which Allow to Identify Internet Websites Containing Information Prohibited for Distribution in the Russian Federation.

The Federal Communications Agency is a federal executive body that implements governmental policy, manages state property and provides public services in the area of communications, including the allocation of numbering capacity and the certification of equipment for compliance with technical requirements.

The State Radio Frequencies Commission is an inter-agency coordination body acting under the Ministry of Digital Development, Communications and Mass Media of the Russian Federation which is responsible for the regulation of the radio frequency spectrum, develops long-term policy for frequency allocation in the Russian Federation and decides on the allocation of frequency bands.

The Federal Antimonopoly Service (FAS) is a federal executive body that supervises competition regulations and enforces the Federal Law on Protection of Competition and the Federal Law on Natural Monopolies and the regulations enacted thereunder. The FAS controls certain activity of natural monopolies, including monitoring their execution of certain obligatory contracts, and can issue mandatory orders as provided for in the Federal Law on Natural Monopolies. In addition, the FAS regulates certain tariffs in the sphere of telecommunications, including the tariffs on the local, intra-zone and DLD calls by subscribers of public switched telephone networks and installation and subscription fees.

Other regulatory authorities. The Federal Service for the Oversight of Consumer Protection and Welfare is responsible for the enforcement of sanitary regulations, including some authority over the location of telecommunications equipment, and supervises the compliance of companies with the regulations relating to the protection of consumer rights. The Federal Service for State Registration, Cadastre and Cartography is responsible for registering certain telecommunications infrastructure that is considered real property in accordance with Government Decree No. 68 dated February 11, 2005. The Federal Service for Financial Monitoring (Rosfinmonitoring) is a federal executive body responsible for countering money laundering and terrorism financing. Mobile operators are to comply with Federal Law No. 115-FZ dated August 7, 2001 “On Combating Money Laundering and Terrorist Financing.”

Licensing of Telecommunications Services and Radio Frequency Allocation

Telecommunications licenses are issued based on the Federal Law on Communications and Government Decree No. 480 dated May 24, 2014 on Bidding Process (Auctions, Tenders) for Receipt of Telecommunications License. Under these regulations, licenses may be issued and renewed for periods ranging from three to twenty-five years. Several different licenses to conduct different communication services may be issued to one entity. Provided the licensee has conducted its activities in accordance with the applicable law and terms of the license, renewals may be obtained upon application to the Federal Service for Supervision of Communications, Information Technologies and Mass Media. Officials of the Federal Service for Supervision of Communications, Information Technologies and Mass Media have broad discretion with respect to both issuance and renewal procedures.

A company must complete a multi-stage process before the commercial launch of its communications network. A company must:

- receive a license from the Federal Service for Supervision of Communications, Information Technologies and Mass Media to provide communications services;
- obtain approval to use specific frequencies within the specified band from the State Radio Frequencies Commission if providing wireless telecommunications services; and
- obtain permission from the Federal Service for Supervision of Communications, Information Technologies and Mass Media for network operations. To receive this permission, a wireless telecommunications services provider must develop a frequency assignment and site plan, which is then reviewed and certified by the Federal Service for Supervision of Communications, Information Technologies and Mass Media for electromagnetic compatibility of the proposed cellular network with other radio equipment operating in the license area. The Federal Service for Supervision of Communications, Information Technologies and Mass Media has discretion to modify this plan, if necessary, to ensure such compatibility. Effective January 1, 2004, licenses may be transferred in case of mergers or other reorganizations of the licensee upon application by a transferee as a new license holder. Additionally, the Ministry of Digital Development, Communications and Mass Media of the Russian Federation has declared that agreements on the provision of telecommunications services must be concluded and performed by the license holder.

If the terms of a license are not fulfilled or the service provider violates applicable legislation, the license may be suspended or terminated. Licenses may be suspended for various reasons, including:

- detection of violations which may cause damage to rights, interests, life or health of individuals or to interests of government administration including, but not limited to, presidential and government telecommunication networks, defense, security and protection of legal order in the Russian Federation;

- annulment of a frequency allocation if it results in the inability to render communications services;
- failure in a timely requirements of the licensing authority, which commits to eliminate detected violations, including provisions that had been granted under reprimand to suspend the license.

In addition, licenses may be terminated for various reasons by a court, including:

- failure to remedy in a timely manner a violation that led to the suspension of the license;
- provision of inaccurate information in documents on the basis of which a license was issued; and
- failure to fulfill obligations undertaken in the process of a tender or auction.

The license may also be terminated by the Federal Service for Supervision of Communications, Information Technologies and Mass Media in a number of cases, including liquidation of a license holder. A suspension or termination of a license may be appealed in court.

Frequencies are allocated for a maximum term of ten years, which may be extended upon the application of a frequency user. Under the Federal Law on Communications, frequency allocations may be changed for purposes of state management, defense, security and protection of legal order in the Russian Federation with the license holder to be compensated for related losses. Further, frequency allocations may be suspended or terminated for a number of reasons, including failure to comply with the conditions on which the frequency was allocated.

The following one-time license fee is payable irrespective of the number of regions covered by the license: RUB 7,500 for services involving, among other things, the use of a frequency spectrum and the lease of communication channels. The license fee for a license received through a tender or auction is determined by the terms of such tender or auction.

Furthermore, the Federal Law on Communications provides for the establishment of a “universal services reserve fund” for the purpose of supporting communications companies operating in less developed regions of Russia through the financing, construction and maintenance of telecommunications networks in low-profit and unprofitable sectors. This reserve fund is aimed at eliminating the practice of cross-subsidies by compensating operators for certain mandatory, loss-making local services in rural and sparsely populated areas. It is funded by a levy imposed on all operators of public networks, including us, in the amount of 1.2% of revenues from telecommunications services less the amount of taxes paid by subscribers. The universal service fund concept has been used in some developed countries and in Eastern Europe.

The Federal Law on Communications empowers the Russian government to determine and annually review the list of licensing requirements applicable to various communication services being licensed. The list of licensing requirements was enacted by Government Decree No. 87 dated February 18, 2005, as amended. Licenses also generally contain a number of other detailed conditions, including a date by which service must begin, technical standards and certain other terms and conditions. We have either commenced service by the applicable deadline or received an extension of the applicable deadline for all of our licenses.

Equipment Certification

Government Decree No. 532 adopted on June 25, 2009, sets forth the types of communications equipment that is subject to mandatory certification. Communications equipment must be certified, or its compliance with the established requirements must be declared and proven in the interconnected communications network of the Russian Federation, which includes all fixed line and wireless networks open to the public. All our networks must be certified. The Federal Communications Agency issues certificates of compliance with technical requirements to equipment suppliers based on the Agency's internal review. In addition, a Presidential decree requires that licenses and equipment certifications should be obtained from the Federal Security Service to design, produce, sell, use or import encryption devices. Some commonly used digital cellular telephones are designed with encryption capabilities and must be certified by the Federal Security Service.

Further, certain high-frequency equipment, a list of which was approved by Government Decree No. 539 dated October 12, 2004 (as amended), manufactured or used in the Russian Federation, requires special permission from the Federal Service for Supervision of Communications, Information Technologies and Mass Media. Failure to receive such certification could result in the mandatory cessation of the use of such equipment. In accordance to Government Decree No. 1252 dated November 27, 2014, the equipment can be shared by operators according to their agreement and certificate of the Federal Service for Supervision of Communications, Information Technologies and Mass Media. In accordance with the Federal Law No. 204 dated June 23, 2016, the radio frequency spectrum can be shared by operators according to their agreement. In the case of shared-use of the radio frequency spectrum for the provision of telecommunications services each operator should have proper telecommunications services license.

Competition, Interconnect and Pricing

The Federal Law on Communications requires federal regulatory agencies to encourage competition in the provision of communication services and prohibits the abuse of a dominant position to limit competition. The Federal Law on Communications provides that telecommunications tariffs may be regulated in cases provided for by legislation. The Federal Law on Communications and Presidential Decree No. 221, enacted on February 28, 1995, as amended, on Measures for Streamlining State Regulation of Prices (Tariffs) allow for regulation of tariffs and other commercial activities of telecommunications companies that are "natural monopolies." Government Decree No. 637, dated October 24, 2005 (as amended by the Government Decree No. 922, dated August 6, 2018) authorized the FAS to set the following tariffs for the natural monopolies in the communications market, including:

- provision of access to a local telephone network;
- permanent use of a subscriber's line; and
- local, intra-zone and DLD calls.

In addition, the Federal Law on Natural Monopolies No. 147 dated August 17, 1995 establishes the legal basis for federal regulation of natural monopolies, including those in the communications market, and provides for governmental control over tariffs and certain activities of the natural monopolies. The Federal Law on Natural Monopolies outlines the types of transactions for which a regulated entity must obtain prior FAS approval and establishes the general principle that regulated entities may not refuse to provide regulated services to certain types of consumers. Regulated entities are also subject to continuous reporting requirements, including submitting plans for capital investments.

The FAS maintains a Register of Natural Monopolies whose tariffs are controlled and regulated by the state. A telecommunications operator may be included in this register upon a decision by the FAS based on analysis of the operator's activities and the market conditions.

Our subsidiary, MGTS, was added to the Register of Natural Monopolies in 2000 and, therefore, is subject to the requirements of the Federal Law on Natural Monopolies including, *inter alia*, the following:

- the FAS regulates and controls tariffs for services provided by MGTS, including installation fees, monthly subscription fees (for subscribers to the unlimited tariff plan) and local call charges (for subscribers who do not use the unlimited tariff plan);
- MGTS must obtain prior FAS approval for any transaction involving the acquisition, disposal or lease of assets not related to the regulated activity, if the value of such assets exceeds 10% of MGTS' share capital, additional capital, retained profits and reserves;
- MGTS is required to maintain separate accounting records for each type of activity;
- MGTS is required to publicly disclose information on tariffs, products, material conditions of contracts with customers, capital expenditure programs and certain other information; and
- MGTS is required to comply with Federal law No. 223-FZ dated July 18, 2011 "On Procurement of Goods, Works, Services by Certain Types of Legal Entities" while procurement of goods and services.

It should also be noted that our subsidiary Comstar-Regions was added to the Register of Natural Monopolies in 2009, but on November 24, 2015 it was excluded therefrom and on December 5, 2015, it merged into MTS.

In addition, companies which are found to have dominant position on relevant markets may be subject to certain FAS restrictions in conducting their business, including in relation to pricing, acquisitions, geographical expansion, and associations and agreements with competitors. On January 5, 2016, the new version of the Federal law No. 135-FZ "On Protection of the Competition" came into force and the regulations in relation to the register of companies holding market share excess 35% were repealed. Nowadays, dominant position should be determined regarding each case without a register. See also "Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business—If we are found to have a dominant position in the markets where we operate and are determined to have abused this position, the FAS may be entitled to regulate our subscriber tariffs and impose certain restrictions on our operations."

The Federal Law on Communications also provides for the special regulation of telecommunications operators occupying a "substantial position," *i.e.*, operators which together with their affiliates have, in the Russian Federation generally or in a geographically defined specific numerical zone, 25% or more of installed capacity or capacity to carry out transmission of not less than 25% of traffic. MGTS was added to the register of telecommunications operators occupying a substantial position and, therefore, is subject to the requirements of the Federal Law on Communications relating to operators occupying a substantial position in the public switched telephone networks including, *inter alia*, the following:

- MGTS must develop interconnect rules and procedures in accordance with the requirements set forth by the federal government;
- MGTS must ensure that interconnect agreements with operators who intend to interconnect to our networks are entered on the same terms and conditions as the agreements between MGTS, us and our affiliates; MGTS also cannot refuse to provide interconnect or discriminate against one operator over another;

- MGTS must comply with the mandatory orders of the Federal Service for Supervision of Communications, Information Technologies and Mass Media issued if non-compliance with law was identified as a result of monitoring of MGTS' interconnect terms; and
- MGTS must comply with the tariffs for interconnect and traffic transit where determined by the Federal Communications Agency.

The Federal Law on Communications and implementation rules adopted by Government Decrees No. 161 dated March 28, 2005, and No. 627 dated October 19, 2005, also provides for government regulation of interconnect tariffs established by operators occupying a substantial position. In addition, such operators, including MGTS, are required to develop standard interconnect contracts and publish them as a public offer for all operators who intend to use such interconnect services.

Notwithstanding the above, fixed line operators not considered to occupy a substantial position and not included in the Register of Natural Monopolies, as well as mobile operators, are free to set their own tariffs. Also see “Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business—If we or any of our mobile network operator subsidiaries operating in Russia are identified as an operator occupying a “substantial position,” the regulator may reduce our interconnect tariffs which, in turn, may have a material adverse effect on our financial condition and results of operations.”

Calling Party Pays

In March 2006, the Federal Law on Communications was amended to incorporate a “calling party pays” scheme effective as of July 1, 2006. Prior to the implementation of the “calling party pays” principle, subscribers of fixed line operators could initiate calls to mobile phone users free of charge. Under the current system, fixed line operators charge their subscribers for such calls and transfer a percentage of the charge to mobile operators terminating such calls. The percentage transferred to mobile operators is regulated by the Federal Service for Supervision of Communications, Information Technologies and Mass Media and is known as the settlement rate.

Communications Services rules and Mobile Number Portability

On December 15, 2014, Government Decree No. 1342 concerning fixed and mobile services rules was adopted. This act, *inter alia*, has changed rules and conditions of MNP process (retaining telephone number after switching from one mobile operator to another) of certain types of legal entities and state customers. The period of switching numbers for mentioned subscribers was decreased and the procedure was simplified.

Introduction of renewed procedure on MNP in respect of particular legal entities and state customers affects the mobile services market in Russia and leads to intensification of competition.

Anti-terror law

The Federal Law No. 374 dated July 6, 2016, amended some legislative acts and established additional measures to counter terrorism and to maintain public safety.

In accordance with the abovementioned amendments to the Federal Law on Communications (came into force in July, 2018) the telecommunications operators will have to store and to provide to the authorities upon request the information on the facts of receiving, transmitting, delivering and (or) processing of voice information, text messages, images, sounds, video, or other communications by their subscribers, as well as relevant messages themselves.

The implementation of these amendments has a material effect on telecommunications operators' financials and performance, see also “Item 3. Key Information—D. Risk Factors.”

Subscribers identification

The Federal Law No 245 dated July 29, 2017, amended the Federal Law on Communication to prevent the conclusion of the contract on the provision of services of mobile communications without proper identification of the subscriber (user) of communication services.

These amendments (came into force in June, 2018) have material effect on telecommunication operators since they are required to implement measures to organize the interaction with state resources for verification of information on subscribers.

Sovereign Internet

The Federal Law No. 90 dated May 1, 2019, establishes the obligation of telecommunications operators to install equipment to counter threats to the stability, security and integrity of the Internet on the territory of the Russian Federation. Consequently, operators are likely to face additional costs for the maintenance and operation of this equipment. For more information on the law, see “Item 3. Key Information—Legal Risks and Uncertainties—Regulatory changes in Russia as well as regulatory changes at the international level may have a material adverse effect on our financial condition and results of operations.”

Licenses

Mobile Services

The following table shows, as of April 23, 2020, information with respect to the license areas in which we and our subsidiaries and affiliates provide or expect to provide GSM, LTE and UMTS services:

License Region	Licensee	Radio Access Networks Technologies	Expiry date
Moscow License Area			
Moscow	MTS PJSC	GSM/UMTS-900, GSM/UMTS/LTE – 1800	April 28, 2023
Moscow region	MTS PJSC	GSM/UMTS-900, GSM/UMTS/LTE – 1800	April 28, 2023
St. Petersburg License Area			
St. Petersburg	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Leningrad region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Russian Regional License Areas			
European Russia			
Adygeya Republic	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Arkhangelsk region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Astrakhan region	MTS PJSC	GSM/LTE-1800	October 18, 2021
Astrakhan region	MTS PJSC	GSM-900	December 11, 2023
Bashkortostan Republic	MTS PJSC	IMT-MC/LTE-450, IMT-MC/UMTS/LTE-2100	November 21, 2021
Bashkortostan Republic	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	August 22, 2022
Belgorod region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Bryansk region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Chechen Republic	MTS PJSC	GSM/LTE-1800	April 28, 2021
Chechen Republic	MTS PJSC	GSM-900	June 10, 2024
Chuvashia Republic	MTS PJSC	GSM-900, GSM/LTE-1800	December 30, 2023
Dagestan Republic	MTS PJSC	GSM-900, GSM/LTE-1800	December 30, 2023
Ingushetia Republic	MTS PJSC	GSM-900, GSM/LTE-1800	December 30, 2023
Ivanovo region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Kabardino-Balkar Republic	MTS PJSC	GSM/LTE-1800	December 30, 2023
Kabardino-Balkar Republic	MTS PJSC	GSM-900	June 10, 2024
Kaliningrad region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Kalmykia Republic	MTS PJSC	GSM-900	January 25, 2021
Kalmykia Republic	MTS PJSC	GSM/LTE-1800	December 30, 2023
Kaluga region	MTS PJSC	GSM/UMTS-900, GSM/LTE – 1800	April 28, 2023
Karachaevo-Cherkesia Republic	MTS PJSC	GSM-900, GSM/LTE-1800	December 30, 2023
Karelia Republic	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Kirov region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Komi Republic	MTS PJSC	GSM-900, GSM/LTE-1800	August 22, 2022

License_Region	Licensee	Radio Access Networks Technologies	Expiry date
Kostroma region	MTS PJSC	GSM/LTE-900, GSM/LTE-1800	April 28, 2023
Krasnodar region	MTS PJSC	GSM-900, GSM/LTE-1800	May 30, 2022
Kursk region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Lipetsk region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Mari-El Republic	MTS PJSC	GSM-900, GSM/LTE-1800	January 15, 2022
Mordovia Republic	MTS PJSC	GSM-900, GSM/LTE-1800	December 30, 2023
Murmansk region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Nenetsk Autonomous region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Nizhny Novgorod region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Novgorod region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Orel region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Orenburg region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Orenburg region	MTS PJSC	GSM/LTE-1800	October 21, 2025
Penza region	MTS PJSC	GSM-900	May 6, 2021
Penza region	MTS PJSC	GSM-900, GSM/LTE-1800	September 2, 2022
Perm region	MTS PJSC	GSM/UMTS-900, GSM/LTE – 1800	April 28, 2023
Perm region (Komi-Permyak region)	MTS PJSC	GSM/LTE-1800	October 21, 2025
Perm region (excluding Komi-Permyak region)	MTS PJSC	GSM/LTE-1800	October 21, 2025
Pskov region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Rostov region	MTS PJSC	GSM-900, GSM/LTE-1800	July 1, 2020
Ryazan region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Samara region	MTS PJSC	GSM-900, GSM/LTE-1800	December 30, 2022
Saratov region	MTS PJSC	GSM-900, GSM/LTE-1800	July 11, 2022
Severnaya Osetia-Alania Republic	MTS PJSC	GSM-900, GSM/LTE-1800	September 1, 2021
Severnaya Osetia-Alania Republic	MTS PJSC	GSM/LTE-1800	October 21, 2025
Smolensk region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Stavropol region	MTS PJSC	GSM-900, GSM/LTE-1800	December 30, 2023
Tambov region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Tatarstan Republic	MTS PJSC	GSM-900, GSM/LTE-1800	June 26, 2022
Tula region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Tver region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Udmurt Republic	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Ulyanovsk region	MTS PJSC	GSM-900	May 6, 2021
Ulyanovsk region	MTS PJSC	GSM/LTE-1800	December 30, 2023
Vladimir region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Volgograd region	MTS PJSC	GSM/LTE-1800	October 4, 2021
Volgograd region	MTS PJSC	GSM-900	February 26, 2024
Volgoda region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Voronezh region	MTS PJSC	GSM/LTE-900, GSM/LTE-1800	April 28, 2023
Yaroslavl region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Asian Russia			
Altai Republic	MTS PJSC	GSM-900	July 19, 2021
Altai Republic	MTS PJSC	GSM/LTE-1800	December 30, 2023
Altai region	MTS PJSC	GSM/LTE-900, GSM/LTE-1800	September 8, 2020
Amur region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Amur region	MTS PJSC	GSM/LTE 1800	October 21, 2025
Buryatiya Republic	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Chelyabinsk region	MTS PJSC	GSM/UMTS-900, GSM/LTE – 1800	April 28, 2023
Chukotsk Autonomous region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Irkutsk region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Jewish Autonomous region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Kamchatka region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Kemerovo region	MTS PJSC	GSM-900, GSM/LTE-1800	December 30, 2023
Khabarovsk region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Khakassiya Republic	MTS PJSC	GSM/LTE-900, GSM/LTE-1800	September 13, 2021
Khanty Mansiysk Autonomous region	MTS PJSC	IMT-MC/LTE-450, IMT-MC/UMTS/LTE-2100	May 23, 2023
Khanty Mansiysk Autonomous region	MTS PJSC	GSM/UMTS-900, GSM/LTE – 1800	April 28, 2023
Krasnoyarsk region	MTS PJSC	GSM-900, GSM/LTE-1800	May 7, 2023
Kurgan region	MTS PJSC	GSM/UMTS-900, GSM/LTE – 1800	April 28, 2023
Magadan region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Novosibirsk region	MTS PJSC	GSM/LTE-900, GSM/LTE-1800	February 21, 2022

<u>License Region</u>	<u>Licensee</u>	<u>Radio Access Networks Technologies</u>	<u>Expiry date</u>
Omsk region	MTS PJSC	GSM/LTE-900, GSM/LTE-1800	December 20, 2021
Primorsky region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Sakha Republic (Yakutia)	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Sakhalin region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Sverdlovsk region	MTS PJSC	GSM/UMTS-900, GSM/LTE – 1800	April 28, 2023
Tomsk region	MTS PJSC	GSM/LTE-900, GSM/LTE-1800	June 5, 2023
Tyumen region	MTS PJSC	GSM/UMTS-900, GSM/LTE – 1800	April 28, 2023
Tyva Republic	MTS PJSC	GSM/LTE-1800	December 30, 2023
Tyva Republic	MTS PJSC	GSM/UMTS-900	July 19, 2021
Yamalo-Nenetsk Autonomous region	MTS PJSC	GSM-900, GSM/LTE-1800	April 28, 2023
Zabaykalsky region	Sibintertelecom CJSC	GSM-900, GSM/LTE-1800	June 5, 2024
Zabaykalsky region	MTS PJSC	GSM/UMTS/LTE-900, GSM/LTE – 1800	April 28, 2023
Russian Federation			
European Russia	MTS PJSC	LTE-800,2600	July 25, 2022
European Russia, except Crimea Republic, Sevastopol	MTS PJSC	UMTS/LTE-2100	May 21, 2022
European Russia, except Crimea Republic, Sevastopol	MTS PJSC	LTE-2600	April 15, 2026
Asian Russia	MTS PJSC	UMTS/LTE-2100	May 21, 2022
Asian Russia	MTS PJSC	LTE-2600	April 15, 2026
Asian Russia	MTS PJSC	LTE-800, 2600	July 25, 2022
Moscow License Area	MTS PJSC	UMTS/LTE-2100	May 21, 2022
Moscow License Area	MTS PJSC	LTE-2600	December 29, 2021
Moscow License Area	MTS PJSC	LTE-800,2600	July 25, 2022
St. Petersburg License Area	MTS PJSC	UMTS/LTE-2100	May 21, 2022
St. Petersburg License Area	MTS PJSC	LTE-2600	April 15, 2026
St. Petersburg License Area	MTS PJSC	LTE-800,2600	July 25, 2022
Armenia			
Armenia	MTS Armenia CJSC	LTE-800, GSM/UMTS-900, GSM/LTE-1800, UMTS-2100, LTE-2600	November 4, 2034
Belarus			
Belarus	Mobile Telesystems LLC	GSM/UMTS/NB-IoT-900, GSM-1800, UMTS-2100, LTE-1800/2600 (MOCN sharing) ⁽¹⁾	April 30, 2022

(1) The LTE radio access network in Belarus is owned by a national company beCloud as a Single Wholesale Network, implemented on-board of existing MNOs infrastructure (MTS, A1, Life), using 1800 and 2600 MHz frequency bands.

Mobile Virtual Network

<u>License Region</u>	<u>Licensee</u>	<u>Expiry date</u>
Moscow, Moscow region	MGTS PJSC	August 2, 2023
Zabaykalsky region	CJSC Sibintertelecom	September 8, 2020
Zabaykalsky region	MTS PJSC	February 26, 2024

Each of our licenses requires service to be started by a specific date. We have met this target or received extensions to these dates in those regional license areas in which we have not commenced operations. Neither the government nor other parties have taken or attempted to take legal actions to suspend, terminate or challenge the legality of any of our licenses (except for Uzbekistan, see Note 4 to our audited consolidated financial statements). We have not received any notice of violation of any of our licenses, and we believe that we are in compliance with all material terms of our licenses.

Fixed Line Services

The following table shows, as of April 23, 2020, information with respect to our fixed line licenses:

Licensee	License Region(s)	License number	Expiry Date
International, national, intra-zonal and local communications services			
MTS PJSC	Russian Federation	178568	February 16, 2027
MTS PJSC	Moscow	137566	February 16, 2021
MTS PJSC	Moscow	150064	March 30, 2022
MTS PJSC	Moscow region	135027	November 21, 2020
MTS PJSC	Moscow region	150058	March 30, 2022
MGTS PJSC	Moscow	166444	December 11, 2023
MGTS PJSC	Moscow	161957	July 10, 2023
MGTS PJSC	Moscow region	169795	April 17, 2024
MGTS PJSC	Moscow, Moscow region	127698	July 28, 2020
Progressivniye Technologii CJSC .	Moscow region	169311	July 27, 2023
MTS PJSC	St. Petersburg	169450	January 19, 2024
MTS PJSC	St. Petersburg, Leningrad region, Arkhangelsk region, Karelia Republic, Murmansk region, Novgorod region, Vologda region	150052	April 17, 2022
MTS PJSC	Leningrad region	147354	December 7, 2021
MTS PJSC	Altai Republic	148176	February 17, 2022
MTS PJSC	Altai region	146073	October 24, 2021
MTS PJSC	Altai region	158899	February 27, 2023
MTS PJSC	Amur region	146092	October 24, 2021
MTS PJSC	Arkhangelsk region	169456	January 19, 2024
MTS PJSC	Astrakhan region	146080	October 24, 2021
MTS PJSC	Astrakhan region	169454	January 19, 2024
MTS PJSC	Bashkortostan Republic	135028	November 21, 2020
MTS PJSC	Bashkortostan Republic	149173	March 5, 2022
MTS PJSC	Belgorod region	173482	April 10, 2024
MTS PJSC	Belgorod region, Bryansk region, Kursk region, Lipetsk region	158901	February 7, 2023
MTS PJSC	Buryatiya Republic	159602	April 18, 2023
MTS PJSC	Chelyabinsk region	146074	October 24, 2021
MTS PJSC	Chelyabinsk region	135967	December 15, 2020
MTS PJSC	Chuvashia Republic	159599	April 11, 2023
MTS PJSC	Dagestan Republic	152517	June 5, 2022
MTS PJSC	Irkutsk region (except for the Ust-Ordyn Buryat Autonomous District)	146069	October 24, 2021
MTS PJSC	Ivanovo region	146068	October 24, 2021
MTS PJSC	Kaliningrad region	156888	December 17, 2022
MTS PJSC	Kaliningrad region	169457	January 19, 2024
MTS PJSC	Kaluga region	129946	July 3, 2020
MTS PJSC	Karelia Republic	169448	January 19, 2024
MTS PJSC	Kemerovo region	168619	December 26, 2023
MTS PJSC	Kemerovo region	169451	January 19, 2024
RIKT CJSC	Kemerovo region (Mezhdurechensk)	147828	December 27, 2021
MTS PJSC	Khabarovsk region	149647	March 15, 2022

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Khabarovsk region	146066	October 24, 2021
MTS PJSC	Khakassiya Republic	140458	June 6, 2021
MTS PJSC	Khanty Mansiysk Autonomous region	160629	December 1, 2020
MTS PJSC	Khanty Mansiysk Autonomous region	164187	October 24, 2021
MTS PJSC	Kirov region	149653	March 15, 2022
MTS PJSC	Kirov region	146089	October 24, 2021
MTS PJSC	Komi Republic	146079	October 24, 2021
MTS PJSC	Komi Republic	169449	January 19, 2024
MTS PJSC	Krasnodar region	146067	October 24, 2021
MTS PJSC	Krasnodar region	163840	August 1, 2023
ProgTech-Yug LLC . .	Krasnodar region	176677	October 26, 2024
MTS PJSC	Krasnoyarsk region	158902	February 27, 2023
MTS PJSC	Krasnoyarsk region (except for the Evenk Autonomous District)	146087	October 24, 2021
MTS PJSC	Kurgan region	170433	February 17, 2024
MTS PJSC	Kurgan region	146086	October 24, 2021
MTS PJSC	Kursk region	176685	August 28, 2024
MTS PJSC	Mari El Republic	159600	April 11, 2023
MTS PJSC	Murmansk region	169455	January 19, 2024
MTS PJSC	Nizhny Novgorod region	146075	October 24, 2021
MTS PJSC	Nizhny Novgorod region	174356	October 1, 2024
MTS PJSC	Novgorod region	169453	January 19, 2024
MTS PJSC	Novosibirsk region	146071	October 24, 2021
MTS PJSC	Novosibirsk region	158896	February 27, 2023
MTS PJSC	Omsk region	146088	October 4, 2021
MTS PJSC	Omsk region	145060	October 4, 2021
MTS PJSC	Orel region	155416	October 3, 2022
MTS PJSC	Orel region, Voronezh region	155415	October 24, 2022
MTS PJSC	Orenburg region	149644	March 15, 2022
MTS PJSC	Orenburg region	146072	October 24, 2021
MTS PJSC	Penza region	149649	March 15, 2022
MTS PJSC	Penza region	150057	March 14, 2022
MTS PJSC	Perm region	146078	October 24, 2021
MTS PJSC	Perm region	135956	December 15, 2020
MTS PJSC	Primorsky region	149648	March 15, 2022
MTS PJSC	Primorsky region	146070	October 24, 2021
MTS PJSC	Rostov region	146084	October 24, 2021
MTS PJSC	Rostov region	163838	August 1, 2023
MTS PJSC	Ryazan region	138952	December 23, 2020
MTS PJSC	Ryazan region	129950	July 3, 2020
MTS PJSC	Sakha Republic (Yakutia)	146076	October 24, 2021
MTS PJSC	Sakhalin region	146081	October 24, 2021
MTS PJSC	Samara region	146090	October 24, 2021
MTS PJSC	Samara region	176558	December 31, 2024
MTS PJSC	Saratov region	149654	March 15, 2022
MTS PJSC	Saratov region	159597	April 18, 2023
MTS PJSC	Severnaya Osetia Alania Republic	163839	August 1, 2023
MTS PJSC	Severnaya Osetia Alania Republic	152518	June 5, 2022
MTS PJSC	Smolensk region	158900	February 27, 2023

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Sverdlovsk region	140009	March 15, 2021
MTS PJSC	Sverdlovsk region	149645	March 15, 2022
MTS PJSC	Tambov region	149180	February 28, 2022
MTS PJSC	Tatarstan Republic	146082	October 24, 2021
MTS PJSC	Tatarstan Republic	161954	May 23, 2023
MTS PJSC	Tomsk region	146094	October 24, 2021
MTS PJSC	Tomsk region	158904	February 27, 2023
MTS PJSC	Tver region	157431	August 4, 2022
MTS PJSC	Tver region	158903	February 27, 2023
MTS PJSC	Tyumen region, YamaloNenetsk Autonomous region	135962	December 1, 2020
MTS PJSC	Tyumen region, YamaloNenetsk Autonomous region	154794	August 31, 2022
MTS PJSC	Udmurt Republic	149650	March 15, 2022
MTS PJSC	Udmurt Republic	146091	October 4, 2021
MTS PJSC	Ufa, Bashkortostan Republic	131715	September 8, 2020
MTS PJSC	Ulyanovsk region	149171	February 28, 2022
MTS PJSC	Ulyanovsk region	135960	December 15, 2020
MTS PJSC	Volgograd region	146085	November 17, 2021
MTS PJSC	Volgograd region	170831	March 4, 20124
MTS PJSC	Vologda region	169452	January 19, 2024
MTS PJSC	Yaroslavl region	146077	October 24, 2021
MTS PJSC	Zabaykalsky region	127170	May 6, 2020
Telematic Services			
MTS PJSC	Russian Federation	101246	July 25, 2022
MTS PJSC	Russian Federation except Moscow, Moscow region, Republic of Crimea, Sevastopol	142346	April 15, 2026
Navigation			
Information			
Systems CJSC	Russian Federation	161286	December 26, 2022
Oblachny Retail LLC	Russian Federation	135699	September 16, 2020
Stream LLC	Russian Federation	175178	September 22, 2021
NVision Group CJSC	Moscow	164415	April 17, 2023
MKS Balashikha	Moscow region (Balashikha)	149925	June 19, 2021
Progressivniye			
Technologii CJSC	Moscow, Moscow region	169314	July 28, 2021
MGTS PJSC	Moscow, Moscow region	145447	December 11, 2021
MTS PJSC	St. Petersburg, Leningrad region, Arkhangelsk region, Kaliningrad region, Karelia Republic, Murmansk region, Nenetsk Autonomous region, Novgorod region, Vologda region	145056	October 4, 2021

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Komi Republic, Perm region, Orenburg region, Orel region, Nizhny Novgorod region, Lipetsk region, Moscow, Kostroma region, Smolensk region, Kirov region, Kaluga region, Ivanovo region, Bryansk region, Belgorod region, Moscow region, Kursk region, Voronezh region, Tyumen region, Sverdlovsk region, Omsk region, Kurgan region, Khanty Mansiysk Autonomous region, Chelyabinsk region, Pskov region, Yaroslavl region, Ryazan region, Vladimir region, Udmurt Republic, Tver region, Tula region, Tambov region, YamaloNenetsk Autonomous region, Amur region	137567	February 15, 2021
MTS PJSC	Adygeya Republic	129947	July 15, 2020
MTS PJSC	Altai Republic	152081	May 22, 2022
MTS PJSC	Altai region	147352	December 1, 2021
MTS PJSC	Astrakhan region	129949	July 15, 2020
MTS PJSC	Bashkortostan Republic	140459	June 21, 2021
MTS PJSC	Buryatiya Republic, Kamchatka region (excluding the Koryak Autonomous Area), Magadan region, Sakhalin region	128536	June 17, 2020
MTS PJSC	Chechen Republic	156889	December 6, 2022
MTS PJSC	Chukotsk Autonomous region, Jewish Autonomous region, Irkutsk region, Koryak District of the Kamchatka region	130984	August 13, 2020
MTS PJSC	Chuvashia Republic, Mordovia Republic	131717	September 14, 2020
MTS PJSC	Dagestan Republic, Ingushetia Republic, KabardinoBalkar Republic, KarachaevoCherkesia Republic, Severnaya Osetia Alania Republic	131721	September 14, 2020
MTS PJSC	Kalmykia Republic	129957	July 28, 2020
RIKT CJSC	Kemerovo region (Mezhdurechensk)	172079	August 1, 2023
MTS PJSC	Khabarovsk region	127169	June 17, 2020
MTS PJSC	Khakassiya Republic	128525	June 17, 2020
MTS PJSC	Krasnodar region	129951	July 15, 2020
ProgTech-Yug LLC . .	Krasnodar region	176679	October 26, 2024
MTS PJSC	Krasnoyarsk region	161221	May 7, 2023
MTS PJSC	Mari El Republic	131716	September 14, 2020
MTS PJSC	Novosibirsk region	138258	April 13, 2021
MTS PJSC	Penza region	179663	April 1, 2025
MTS PJSC	Primorsky region	135961	December 21, 2020
MTS PJSC	Republic of Khakassia	128530	May 31, 2020
MTS PJSC	Rostov region	134507	October 26, 2020
MTS PJSC	Sakha Republic (Yakutia)	128518	July 15, 2020
MTS PJSC	Samara region	127680	May 26, 2020
MTS PJSC	Saratov region	127688	May 31, 2020

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Stavropol region	127678	May 26, 2020
MTS PJSC	Tatarstan Republic	129944	July 15, 2020
MTS PJSC	Tomsk region	128519	June 17, 2020
MTS PJSC	Tyva Republic	128521	July 28, 2020
MTS PJSC	Ulyanovsk region	127681	May 31, 2020
MTS PJSC	Volgograd region	127684	May 30, 2020
Teleservice CJSC . . .	Voronezh region	135894	November 21, 2020
CJSC Sibintertelecom	Zabaykalsky region	179532	September 14, 2020
MTS PJSC	Zabaykalsky region	172247	June 5, 2024
Leased Communications Circuits			
MTS PJSC	Russian Federation, except Crimea Republic, Sevastopol	167992	December 29, 2021
Sputnikovoe TV LLC	Russian Federation	176892	August 2, 2023
MTS PJSC	Moscow, Moscow region, Komi Republic, Kostroma region, Tver region	166958	November 24, 2023
MGTS PJSC	Moscow, Moscow region	166443	December 11, 2023
Progressivniye Technologii CJSC .	Moscow, Moscow region	169309	June 30, 2020
MKS Balashikha LLC . .	Moscow region (Balashikha)	156128	June 22, 2022
MTS PJSC	St. Petersburg, Leningrad region, Arkhangelsk region, Karelia Republic, Murmansk region, Nenetsk Autonomous region, Novgorod region, Vologda region	149174	March 1, 2022
MTS PJSC	Adygeya Republic, Krasnodar region	129948	July 15, 2020
MTS PJSC	Aginski Buryatski Autonomous District	135959	December 1, 2020
MTS PJSC	Aginski Buryatski Autonomous District of the Penza region	135963	December 1, 2020
MTS PJSC	Astrakhan region, Stavropol region	127683	May 31, 2020
MTS PJSC	Bashkortostan Republic	161223	May 7, 2023
MTS PJSC	Belgorod region, Bryansk region, Kursk region, Lipetsk region, Orel region, Voronezh region	173073	July 2, 2024
MTS PJSC	Buryatiya Republic	130983	August 25, 2020
MTS PJSC	Chukotsk Autonomous region	174038	August 6, 2024
MTS PJSC	Chuvashia Republic	129943	July 28, 2020
MTS PJSC	Dagestan Republic	152083	May 21, 2022
MTS PJSC	Ingushetia Republic, KabardinoBalkar Republic, KarachaevoCherkesia Republic, Volgograd region	159601	April 18, 2023
MTS PJSC	Irkutsk region	152082	May 21, 2022
MTS PJSC	Ivanovo region, Kirov region, Nizhny Novgorod region, Yaroslavl region	134509	October 13, 2020
MTS PJSC	Jewish Autonomous region	175252	November 14, 2024
MTS PJSC	Kaliningrad region	149147	March 1, 2022
MTS PJSC	Kalmykia Republic, Severnaya Osetia Alania Republic	161219	May 7, 2023

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Kaluga region, Pskov region, Ryazan region, Smolensk region, Tula region, Vladimir region	134506	October 7, 2020
MTS PJSC	Kamchatka region, Koryakski Autonomous region	152084	May 21, 2022
RIKT CJSC	Kemerovo region (Mezhdurechensk)	164771	August 1, 2023
MTS PJSC	Kemerovo region, Tomsk region	161214	May 7, 2023
MTS PJSC	Khabarovsk region, Sakha Republic (Yakutia), Zabaykalsky region (excluding the Aginski Buryatski Autonomous District)	135026	November 21, 2020
MTS PJSC	Khakassiya Republic	128533	June 17, 2020
ProgTech-Yug LLC . .	Krasnodar region	175482	July 5, 2022
MTS PJSC	Krasnoyarsk region	161220	May 7, 2023
MTS PJSC	Magadan region	152080	May 21, 2022
MTS PJSC	Mari El Republic	134511	October 5, 2020
MTS PJSC	Mordovia Republic	135965	December 23, 2020
MTS PJSC	Omsk region	147357	December 27, 2021
MTS PJSC	Primorsky region	127171	May 10, 2020
MTS PJSC	Rostov region, Rostov region	166424	October 2, 2023
MTS PJSC	Sakhalin region	130986	August 25, 2020
MTS PJSC	Samara region, Saratov region, Ulyanovsk region	127686	May 31, 2020
MTS PJSC	Tatarstan Republic	161218	May 7, 2023
MTS PJSC	Tyva Republic	128529	July 28, 2020
MTS PJSC	Yamalo-Nenetsk Autonomous region, Tyumen region, Sverdlovsk region, Kurgan region, Khanty Mansiysk Autonomous region, Chelyabinsk region, Amur region, Udmurt Republic, Tambov region, Perm region, Orenburg region	138262	April 13, 2021
CJSC Sibintertelecom	Zabaykalsky region	179529	June 5, 2024
Data Transmission Services			
MTS PJSC	Russian Federation	101248	July 25, 2022
Navigation Information Systems CJSC	Russian Federation	161285	December 26, 2022
MTS PJSC	Russian Federation except Moscow, Moscow region, Republic of Crimea, Sevastopol	142344	April 15, 2026
MGTS PJSC	Moscow	166445	December 11, 2023
MGTS PJSC	Moscow region	169794	April 17, 2024
MKS Balashikha LLC . .	Moscow region (Balashikha)	149923	June 19, 2021
Progressivniye Technologii CJSC .	Moscow, Moscow region	169315	July 30, 2021
MTS PJSC	Moscow, Moscow region	150056	April 17, 2022

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	St. Petersburg, Leningrad region, Arkhangelsk region, Kaliningrad region, Karelia Republic, Komi Republic, Murmansk region, Nenetsk Autonomous region, Novgorod region, Pskov region, Vologda region	150054	April 17, 2022
MTS PJSC	Adygeya Republic	129945	July 15, 2020
MTS PJSC	Altai Republic	128534	July 15, 2020
MTS PJSC	Altai region	166425	October 31, 2023
MTS PJSC	Amur region	150053	April 17, 2022
MTS PJSC	Astrakhan region	129956	July 15, 2020
MTS PJSC	Bashkortostan Republic	129955	June 30, 2020
MTS PJSC	Belgorod region, Bryansk region, Kursk region, Lipetsk region, Orel region, Voronezh region	150062	April 17, 2022
MTS PJSC	Buryatiya Republic, Kamchatka region (excluding the Koryak Autonomous Area), Magadan region, Sakhalin region	128520	June 17, 2020
MTS PJSC	Chechen Republic	156887	December 6, 2022
MTS PJSC	Chukotsk Autonomous region, Jewish Autonomous region, Irkutsk region, Koryak Autonomous Area of the Kamchatka region	130982	August 13, 2020
MTS PJSC	Chuvashia Republic, Mordovia Republic	131718	September 14, 2020
MTS PJSC	Dagestan Republic, Ingushetia Republic, KabardinoBalkar Republic, KarachaevoCherkesia Republic, Severnaya Osetia Alania Republic	131719	September 14, 2020
MTS PJSC	Ivanovo region, Kaluga region, Kostroma region, Ryazan region, Smolensk region, Tambov region, Tula region, Tver region, Vladimir region, Yaroslavl region	150059	April 17, 2022
MTS PJSC	Kalmykia Republic	129942	July 28, 2020
MTS PJSC	Kemerovo region	128523	May 31, 2020
RIKT CJSC	Kemerovo region (Mezhdurechensk)	172078	March 15, 2021
MTS PJSC	Khabarovsk region	127172	May 31, 2020
MTS PJSC	Khakassiya Republic	128522	June 17, 2020
MTS PJSC	Kirov region, Nizhny Novgorod region, Udmurt Republic	150063	April 17, 2022
MTS PJSC	Krasnodar region	129952	July 15, 2020
ProgTech-Yug LLC . .	Krasnodar region	176678	October 26, 2024
MTS PJSC	Krasnoyarsk region	161217	May 7, 2023
MTS PJSC	Mari El Republic	131720	September 14, 2020
MTS PJSC	Novosibirsk region	128526	July 15, 2020
MTS PJSC	Novosibirsk region	128527	June 17, 2020
MTS PJSC	Orenburg region	150055	April 17, 2022
MTS PJSC	Penza region	179661	April 1, 2025

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Perm region, Chelyabinsk region, Khanty Mansiysk Autonomous region, Kurgan region, Omsk region, Sverdlovsk region, Tyumen region, YamaloNenetsk Autonomous region	150060	April 17, 2022
MTS PJSC	Primorsky region	135957	December 21, 2020
MTS PJSC	Rostov region	138261	April 3, 2021
MTS PJSC	Samara region	127689	May 26, 2020
MTS PJSC	Saratov region	127687	May 31, 2020
MTS PJSC	Stavropol region	127685	May 26, 2020
MTS PJSC	Tatarstan Republic	129953	July 15, 2020
MTS PJSC	Tomsk region	128535	June 17, 2020
MTS PJSC	Tyva Republic	128517	July 28, 2020
MTS PJSC	Ulyanovsk region	127679	May 31, 2020
MTS PJSC	Volgograd region	127682	June 30, 2020
CJSC Teleservice . . .	Voronezh region	135893	December 21, 2020
Sibintertelecom CJSC	Zabaykalsky region	179530	September 14, 2020
MTS PJSC	Zabaykalsky region	172249	June 5, 2024
Data Transmission Services for Voice			
MTS PJSC	Russian Federation	101245	July 25, 2022
MTS PJSC	Russian Federation except Moscow, Moscow region, Crimea Republic, Sevastopol	142345	April 15, 2026
MTS PJSC	Moscow	150061	March 30, 2022
MGTS PJSC	Moscow	135506	February 16, 2021
MTS PJSC	Moscow region	134508	October 26, 2020
MGTS PJSC	Moscow region	146656	January 26, 2022
Progressivniye Technologii CJSC .	Moscow, Moscow region	173865	October 12, 2023
MTS PJSC	St. Petersburg	177389	January 28, 2025
MTS PJSC	Leningrad region	170435	February 17, 2024
MTS PJSC	Adygeya Republic	149164	March 15, 2022
MTS PJSC	Altai Republic	149176	March 15, 2022
MTS PJSC	Altai region	149161	March 15, 2022
MTS PJSC	Amur region	149178	March 15, 2022
MTS PJSC	Arkhangelsk region	170427	February 17, 2024
MTS PJSC	Astrakhan region	176557	December 18, 2024
MTS PJSC	Bashkortostan Republic	138260	April 11, 2021
MTS PJSC	Belgorod region, Bryansk region, Kursk region, Lipetsk region, Orel region, Voronezh region	130985	July 28, 2020
MTS PJSC	Buryatiya Republic	149156	March 15, 2022
MTS PJSC	Chechen Republic	149157	March 15, 2022
MTS PJSC	Chelyabinsk region	149166	March 15, 2022
MTS PJSC	Chukotsk Autonomous region, Jewish Autonomous region	159596	March 25, 2023
MTS PJSC	Chuvashia Republic	149186	March 15, 2022
MTS PJSC	Dagestan Republic	149179	March 15, 2022
MTS PJSC	Ingushetia Republic	149160	March 15, 2022

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Irkutsk region, Primorsky region, Sakhalin region	135029	December 12, 2020
MTS PJSC	Ivanovo region	134510	October 31, 2020
MTS PJSC	KabardinoBalkar Republic	149163	March 15, 2022
MTS PJSC	Kaliningrad region	149146	March 15, 2022
MTS PJSC	Kalmykia Republic	149162	March 15, 2022
MTS PJSC	Kaluga region	134512	October 26, 2020
MTS PJSC	Kamchatka region	149181	March 15, 2022
MTS PJSC	KarachaevoCherkesia Republic	149159	March 15, 2022
MTS PJSC	Karelia Republic	149167	March 15, 2022
MTS PJSC	Kemerovo region	170425	February 17, 2024
MTS PJSC	Khabarovsk region	149170	March 15, 2022
MTS PJSC	Khakassiya Republic	149184	March 15, 2022
MTS PJSC	Khanty Mansiysk Autonomous region, Sverdlovsk region	159595	March 25, 2023
MTS PJSC	Kirov region	149152	March 15, 2022
MTS PJSC	Komi Republic	149151	March 15, 2022
MTS PJSC	Kostroma region	149175	March 15, 2022
MTS PJSC	Krasnodar region	153738	August 31, 2022
ProgTech-Yug LLC . .	Krasnodar region	175484	October 12, 2021
MTS PJSC	Krasnoyarsk region	170428	February 17, 2024
MTS PJSC	Kurgan region	149169	March 15, 2022
MTS PJSC	Magadan region	149188	March 15, 2022
MTS PJSC	Mari El Republic	149148	March 15, 2022
MTS PJSC	Mordovia Republic	149158	March 15, 2022
MTS PJSC	Murmansk region	149153	March 15, 2022
MTS PJSC	Nenetsk Autonomous region	159593	March 25, 2023
MTS PJSC	Nizhny Novgorod region	170426	February 17, 2024
MTS PJSC	Novgorod region	170429	February 17, 2024
MTS PJSC	Novosibirsk region	170431	February 17, 2024
MTS PJSC	Omsk region	170430	February 17, 2024
MTS PJSC	Orenburg region	149182	March 15, 2022
MTS PJSC	Penza region	149155	March 15, 2022
MTS PJSC	Perm region	158898	February 27, 2023
MTS PJSC	Pskov region	149177	March 15, 2022
MTS PJSC	Rostov region	137565	February 16, 2021
MTS PJSC	Ryazan region, Vladimir region	159594	March 25, 2023
MTS PJSC	Sakha Republic (Yakutia)	149183	March 15, 2022
MTS PJSC	Samara region	176556	December 31, 2024
MTS PJSC	Saratov region	149165	March 15, 2022
MTS PJSC	Severnaya Osetia Alania Republic	149149	March 15, 2022
MTS PJSC	Smolensk region	170434	February 17, 2024
MTS PJSC	Stavropol region	149154	March 15, 2022
MTS PJSC	Tambov region	176559	December 18, 2024
MTS PJSC	Tatarstan Republic	159598	March 25, 2023
MTS PJSC	Tomsk region	149150	March 15, 2022
MTS PJSC	Tula region	170432	February 17, 2024
MTS PJSC	Tver region	176259	November 24, 2024

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Tyumen region, YamaloNenetsk Autonomous region	135966	December 1, 2020
MTS PJSC	Tyva Republic	149172	March 15, 2022
MTS PJSC	Udmurt Republic	158897	February 27, 2023
MTS PJSC	Ulyanovsk region	149168	March 15, 2022
MTS PJSC	Volgograd region	170436	February 17, 2024
MTS PJSC	Vologda region	149187	March 15, 2022
MTS PJSC	Yaroslavl region	131138	June 4, 2020
MTS PJSC	Zabaykalsky region	149185	March 15, 2022
Mobile Radio Services			
MTS PJSC	Astrakhan Region	162943	October 18, 2021
MTS PJSC	Penza Region	162944	September 02, 2022
MTS PJSC	Irkutsk region	178743	November 18, 2024
MTS PJSC	Kemerovo region	177489	October 2, 2024
MTS PJSC	Khanty Mansiysk Autonomous region	138956	December 15, 2020
MTS PJSC	Magadan region	178740	November 18, 2024
MTS PJSC	Tatarstan Republic	178744	November 18, 2024
MTS PJSC	Tyumen region	178741	November 18, 2024
MTS PJSC	YamaloNenetsk Autonomous region	135964	December 15, 2020
MTS PJSC	Zabaykalsky region	178742	November 18, 2024
MTS PJSC	Sakha Republic (Yakutia)	181284	March 2, 2025
MTS PJSC	Khabarovsk Territory	182244	April 6, 2025
MTS PJSC	Krasnoyarsk Territory	182245	April 6, 2025
MTS PJSC	Tyva Republic	182246	April 6, 2025
MTS PJSC	Perm region	182247	April 6, 2025
MTS PJSC	Buryatiya Republic	182248	April 6, 2025
MTS PJSC	Komi Republic	182449	April 6, 2025
MTS PJSC	Omsk region	182251	April 6, 2025
Telecommunications Services for Cablecasting			
MTS PJSC	Russian Federation	176260	November 24, 2024
MGTS PJSC	Moscow	137356	January 27, 2021
MGTS PJSC	Moscow region	161531	June 18, 2023
MKS			
Balashikha LLC . .	Moscow region (Balashikha)	149924	June 19, 2021
Progressivniye			
Technologii CJSC .	Moscow region	173864	January 18, 2023
RIKT CJSC	Kemerovo region (Mezhdurechensk)	164770	September 4, 2023
OJSC Teleservice . . .	Voronezh region	138177	March 15, 2021

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
Telecommunications Services for Broadcasting			
Sputnikovoe TV	Moscow, Moscow region, St. Petersburg, Leningrad region, Adygeya Republic, Arkhangelsk region, Astrahansk region, Bashkortostan Republic, Belgorod region, Bryansk region, Chuvashia Republic, Dagestan Republic, Ivanovo region, Ingushetia Republic, KabardinoBalkar Republic, Kaliningrad region, Kalmykia Republic, Kaluga region, KarachaevoCherkesia Republic, Karelia Republic, Kirov region, Komi Republic , Kostroma region, Krasnodar region, Kursk region, Lipetsk region, Mari El Republic, Mordovia Republic, Murmansk region, Nizhny Novgorod region, Novgorod region, Orel region, Orenburg region, Perm region, Rostov region, Pskov region, Ryazan region, Samara region, Saratov region, Severnaya Osetia Alania Republic, Smolensk region, Stavropol region, Tambov region, Tatarstan Republic, Tula region, Tver region, Udmurt Republic, Ulyanovsk region, Vladimir region, Volgograd region, Vologda region, Voronezh region, Yaroslavl region, Altaisk region, Altai Republic, Amur region, Buryatiya Republic, Chelyabinsk region, Jewish Autonomous region, Irkutsk region, Kemerov region, Khabarovsk region, Khakassiya Republic, Khanty Mansiysk Autonomous region, Krasnoyarsk region, Kurgan region, Novosibirsk region, Omsk region, Primorsky region, Sakha Republic (Yakutia), Sakhalin region, Sverdlovsk region, Tomsk region, Tyumen region, Tyva Republic, YamaloNenetsk Autonomous region, Chechen Republic, Zabaykalsky region, Penza region, Krym Republic, Sevastopol, Nenetsk Autonomous region, Magadan region	176894	October 1, 2024
MTS PJSC ⁽¹⁾	Udmurt Republic	182250	April 6, 2025
Cable Radio (communication services for the purpose of wire broadcasting)			
MGTS PJSC	Moscow region, Moscow	154857	May 16, 2022
Progressivniye Technologii CJSC .	Moscow region	173867	January 18, 2023
MTS PJSC	St. Petersburg, Leningrad region	176686	August 28, 2024
MTS PJSC	Chelyabinsk region	137711	November 20, 2020
MTS PJSC	Irkutsk region	174442	May 23, 2024
MTS PJSC	Ivanovo region	173166	March 28, 2024

<u>Licensee</u>	<u>License Region(s)</u>	<u>License number</u>	<u>Expiry Date</u>
MTS PJSC	Kirov region	149715	November 16, 2021
MTS PJSC	Krasnodar region	169190	October 4, 2023
ProgTech-Yug LLC . .	Krasnodar region	175485	January 18, 2023
MTS PJSC	Nizhny Novgorod region	175253	October 1, 2024
MTS PJSC	Novosibirsk region	171678	January 29, 2024
MTS PJSC	Penza region	159702	October 31, 2022
MTS PJSC	Perm region	179662	April 22, 2025
MTS PJSC	Rostov region	152165	February 8, 2022
MTS PJSC	Ryazan region	162597	February 19, 2023
MTS PJSC	Saratov region	168309	September 3, 2023
MTS PJSC	Smolensk region	179430	December 11, 2024
MTS PJSC	Sverdlovsk region	172248	May 23, 2024
MTS PJSC	Volgograd region	156543	July 5, 2022
MTS PJSC	Vologda region	172369	February 26, 2024
MTS PJSC	Yaroslavl region	173165	March 28, 2024

Banking Services

The following table shows information with respect to the license areas in which MTS Bank provides financial services:

<u>License</u>	<u>License number</u>	<u>Banking services</u>	<u>Issue date</u>
MTS Bank	2268	General license	December 17, 2014
MTS Bank	2268	Attraction of deposits and placement of precious metals	December 17, 2014
MTS Bank	17283	Development, production, distribution of encryption (cryptographic) facilities, information and telecommunication systems, which are protected with encryption (cryptographic) facilities, for works and services in the field of data encryption, technical support services of encryption (cryptographic) facilities, information and telecommunication systems, which are protected with encryption (cryptographic) facilities (except where technical support services of encryption (cryptographic) facilities, information and telecommunication systems, which are protected with encryption (cryptographic) facilities, are performed for the own needs of the legal entity or individual entrepreneur)	June 06, 2019
MTS Bank	177-04635-010000	Dealer activity	January 24, 2001
MTS Bank	177-04613-100000	Broker activity	January 24, 2001
MTS Bank	177-04660-000100	Depository activity	January 24, 2001

All licenses with expiry date before the date of this Annual Report on Form 20-F for the year ended December 31, 2019 were renewed.

C. Organizational Structure

The table below presents our significant subsidiaries and investees, the places of incorporation and our effective ownership interests therein as of December 31, 2019.

Subsidiary	Accounting Method	Ownership Interest	Place of Incorporation/ Organization
RTC	Consolidated	100.0%	Russia
MTS Turkmenistan	Consolidated	100.0%	Turkmenistan
Sibintertelecom	Consolidated	100.0%	Russia
NVision Group	Consolidated	100.0%	Russia
MTS IT	Consolidated	100.0%	Russia
NVision Czech Republic	Consolidated	100.0%	Czech Republic
Sputnikovoe TV	Consolidated	100.0%	Russia
Stream	Consolidated	100.0%	Russia
Dega	Consolidated	100.0%	British Virgin Islands
Stream Digital ⁽¹⁾	Consolidated	100.0%	Russia
MTS Energo	Consolidated	100.0%	Russia
MTDZK LLC (Ticketland)	Consolidated	100.0%	Russia
IT Grad	Consolidated	100.0%	Russia
RIKT	Consolidated	100.0%	Russia
Kinopolis	Consolidated	100.0%	Russia
MTS Armenia	Consolidated	100.0%	Armenia
MTS Bank	Consolidated	99.9%	Russia
MGTS Group	Consolidated	94.7%	Russia
Navigation Information Systems Group	Consolidated	94.7%	Russia
Kulturnaya Sluzhba (Ponominalu)	Consolidated	89.1%	Russia
Oblachny Retail LLC	Consolidated	50.8%	Russia
MTS International Funding Limited ⁽²⁾ (“MTS International”)	Consolidated	SE	Ireland
MTS Belarus	Equity	49.0%	Belarus
Sistema Capital	Equity	30.0%	Russia
Zifrovoe TV	Equity	20.0%	Russia
YOUDO Web Technologies	Equity	15.5%	Cyprus
SWIPGLOBAL	Equity	15.0%	Cyprus

(1) A wholly-owned subsidiary, through which the Group currently repurchases its own shares.

(2) A company organized and existing as a private limited company under the laws of Ireland. The Group does not have any equity in MTS International. It was established for the purpose of raising capital through the issuance of debt securities on the Irish Stock Exchange followed by transferring the proceeds through a loan facility to the Group. In 2010 and 2013, MTS International issued \$750 million 8.625% notes due in 2020 and \$500 million 5.0% notes due in 2023, respectively. The notes are guaranteed by MTS in the event of default. MTS International does not perform any other activities except those required for notes servicing. The Group bears all costs incurred by MTS International in connection with the notes' maintenance activities. Accordingly, the Group concluded that it exercises control over the entity.

See also Note 2 to our audited consolidated financial statements.

D. Property, Plant and Equipment

Property, Plant and Equipment

We own and occupy premises in Moscow at 4 Marksistskaya Street Bldgs. 1-4, 34 Marksistskaya Street Bldg. 10, 1/3 Vorontsovskaya Street Bldgs. 2 and 2a, 5 Vorontsovskaya Street Bldgs. 1 and 2, 13/14 Vorontsovskaya Street Bldg. 4, 8 Vorontsovskaya Street Bldg. 4A, 12/12 Pankratievsky Pereulok, 2/10 Perviy Golutvinskiy Pereulok Bldg. 1 and 2, 4 Perviy Golutvinskiy Pereulok Bldg. 1, 9 Magnitogorskaya Street, 6 Vtoroy Vyazovskiy Proezd Building 1-3, 2A Konstantina Simonova Street, 19 Dmitrovskoye shosse Bldg. 2, 103 Prospect Mira, 42 Profsoyuznaya Street Bldg. 1, Panfilovskiy prospect Zelenograd Bldg 1101A, 24/2 Malaya Dmitrovka Street, 5/9 Malaya Dmitrovka Street, 58/1 Ryazanskiy prospect, 60 Varshavskoe shosse, 27 Smolenskaya-Sennaya square Bldg 2, 27 Smolenskaya-Sennaya square Bldg 3, 6 Ostrovitjanova Street, 2 Mozhayskoe shosse, 51 Second Line of Khoroshevsky Serebryany Bor Bldg.1-3, 24 Central prospect of Khoroshevsky Serebryany Bor, 24 Central prospect, 18 Andropov prospect Bldg. 8-9, premises in Moscow region in village Valishevo, 2 Bldg 2, 2G, 2B, in Podolsk, 1 Komsomolskaya street, in Pushkino, 22 Gorky street, Pushkin district, village Pushkino, 7A, Yaroslavl shosse, Mytishchi district, Pirogovo village, 8, Timiryazev street, which we use for administration, sales and other service centers as well as the operations of mobile switching centers.

We also lease buildings in Moscow for similar purposes, including marketing and sales and other service centers. In addition, through our subsidiary MGTS, we own 73 properties and rent buildings and premises at approximately 96 addresses located throughout Moscow, which serve as sales and customer service offices, house MGTS' telecommunication equipment. We also own office buildings in some of our regional license areas, and we lease office space on an as-needed basis. We believe that our properties are adequate for our current needs and additional space is available to us if and when it is needed.

The primary elements of our network are base stations, base station controllers, transcoders and mobile switching centers. Base stations occupy sites leased at selected locations in all the areas in which we provide network coverage. GSM, 3G and 4G technologies are based on an "open architecture," which means that equipment from one supplier can be combined with that of another supplier to expand the network. Thus, there are no technical limitations to using equipment from different suppliers.

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 is intended to help the reader understand us, our operations and our present business environment and should be read in conjunction with our consolidated financial statements, related notes and other information included elsewhere in this document. In particular, we refer you to the risks discussed in "Item 3. Key Information—D. Risk Factors" for information regarding governmental, economic, fiscal, monetary or political policies or factors that could materially adversely affect our operations or your investment in our shares and ADSs. In addition, this section contains forward-looking statements that involve risk and uncertainties. Our actual results may differ materially from those discussed in forward-looking statements as a result of various factors, including those described under "Item 3. Key Information—D. Risk Factors" and "Cautionary Statement Regarding Forward-Looking Statements." Our reporting currency is the Russian ruble and our consolidated financial statements have been prepared in accordance with IFRS.

A. Operating Results

Overview

We are a leading telecommunications group in Russia, providing a wide range of mobile and fixed line voice, data telecommunications and digital services, including transmission, broadband, pay-TV, various value-added services as well as financial and integration services and selling equipment and accessories. According to AC&M-Consulting, we are the largest mobile operator in Russia in terms of mobile subscribers. We are also the largest operator in Armenia, according to our estimates. As of December 31, 2019, we had a mobile subscriber base of approximately 81.3 million.

Our revenues for the year ended December 31, 2019 grew by 5.5% to RUB 476,106 million compared to 2018. The growth was largely driven by rising mobile services revenue as well as MTS Bank revenue consolidated starting from July 5, 2018. Our operating income for the year ended December 31, 2019 increased by 4.7% to RUB 114,188 million compared to 2018, the increase was mainly attributable to rising gross margin of our mobile and fixed line services, gain from sale and leaseback of MGTS's building as well as MTS Bank consolidation. Our profit for the year ended December 31, 2019 grew by RUB 47,267 million compared to the previous year and totaled to RUB 55,099 million. Profit in 2018 was negatively impacted by the recognition of the provision for fines and penalties relating to the investigation of the Group's former subsidiary in Uzbekistan which was expensed in 2018; as such, profit in 2019 was comparatively higher by RUB 62,493 million inclusive of foreign exchange impacts. This effect was partially offset by negative results of our hedge and forward contracts, loss on sale of our Ukraine operations and increase of our finance costs.

Our revenues for the year ended December 31, 2018 grew by 8.0% compared to 2017 and totaled to RUB 451,466 million. In 2018 we increased our ownership share in MTS Bank to 55.4% and obtained control over the entity. The effect of MTS Bank consolidation on the Group revenue for the financial year 2018 amounted to RUB 9,336 million. In addition, the increase was driven by strong performance in core Russian market as well as continued positive trends in data consumption and digital service adoption across all the regions of operations. Our operating income for the year ended December 31, 2018 totaled to RUB 109,021 million, an increase of 20.8% in comparison with prior year was mainly due to effects from implementation of IFRS 15 and IFRS 16 as well as MTS Bank consolidation. Main positive effects relate to strong service revenue in Russia, higher income from sale of our fixed assets as well as lower impairment of our non-current assets. Our profit for the year ended December 31, 2018 declined to RUB 7,832 million mainly due to provision for fines and penalties relating to previously disclosed investigation of the Group's former subsidiary in Uzbekistan.

Our revenues for the year ended December 31, 2017 totaled to RUB 417,918 million, an increase of 2.3% year-over-year. Overall, the Group's performance in 2017 was largely driven by Russia where the increase in revenues was attributable to the natural growth in data consumption and better monetization through the cancellation of unlimited data plans. Our operating income for the year ended December 31, 2017 increased by 7.3% to RUB 90,241 million due to strong service revenue in Russia as well as roaming cost optimization. Our profit for the year ended December 31, 2017 increased by 16.8% to RUB 56,590 million generally repeating our operating income dynamics. Significant funds are required to support the growth of our subscriber base, primarily for increasing network capacity, maintaining and modernizing our mobile and fixed line networks, developing our network in the regions and continuing the build-out of our LTE, 3G and broadband Internet networks.

Our cash outlays for capital expenditures for the years ended December 31, 2019, 2018, 2017 and were RUB 91,736 million, RUB 99,568 million and RUB 76,431 million, respectively.

We have financed our cash requirements through our operating cash flows and borrowings. Net cash provided by operating activities for the years ended December 31, 2019, 2018, 2017 and was RUB 106,652 million, RUB 154,390 million and RUB 144,640 million, respectively.

Our borrowings consist of notes and bank loans. Our notes comprise of U.S. dollar and ruble denominated notes. As of December 31, 2019 and December 31, 2018 U.S. dollar denominated notes totaled to RUB 46.3 billion and RUB 52.0 billion, and ruble denominated notes amounted to RUB 137.6 billion and RUB 65.4 billion, respectively. Our bank loans consist of U.S. dollar and ruble-denominated borrowings totaling approximately RUB 159.4 billion as of December 31, 2019 and RUB 250.8 billion as of December 31, 2018.

We repaid approximately RUB 156.7 billion and RUB 48.1 billion of indebtedness in 2019 and 2018, respectively. As of December 31, 2019, the total amount available to us under our credit facilities amounted to RUB 363.0 billion. We had total indebtedness of RUB 343.3 billion as of December 31, 2019, excluding lease obligations, compared to RUB 368.1 billion as of December 31, 2018. See Note 23 to our audited consolidated financial statements for a description of our indebtedness.

Our total finance costs for the years ended December 31, 2019, 2018 and 2017 were RUB 47,368 million, RUB 36,988 million and RUB 26,011 million, net of amounts of interest capitalized, respectively. See Note 8 to our audited consolidated financial statements for a description of our finance costs.

Our reporting currency is Russian rubles. Our and our subsidiaries' functional currencies are the ruble in Russia, the hryvnia in Ukraine (before it was disposed of on December 3, 2019), the manat in Turkmenistan, the dram in Armenia and the som in Uzbekistan (before UMS (as defined below) was deconsolidated). See “—Certain Factors Affecting our Financial Position and Results of Operations—Currency fluctuations” and “Item 11. Quantitative and Qualitative Disclosures about Market Risk—Foreign Currency Risk.”

Segments

Management (chief operating decision maker) analyzes and reviews results of the Company's operating segments separately based on the nature of products and services, regulatory environments and geographic areas. The Group's management evaluates the segments' performance based on revenue and operating profit, excluding depreciation and amortization. Management does not analyze assets or liabilities by reportable segments.

The Group identified the following reportable segments:

Russia convergent: represents the results of mobile and fixed line operations, which encompasses services rendered to customers across regions of Russia, including voice and data services, transmission, broadband, pay-TV and various value-added services and retail operations.

Moscow fixed line: represents the results of fixed line operations carried out in Moscow by the Group's subsidiary MGTS. MGTS is the only licensed public switched telephone network (“PSTN”) operator in Moscow and is considered a natural monopoly under Russian antimonopoly regulations. Consequently, substantial part of services provided by MGTS are subject to governmental regulation.

MTS Bank: represents the results of banking services rendered to customers across multiple regions of Russia.

Ukraine: Ukraine was excluded from operational segments presentation as a result of its disposal in December 2019. This exclusion was retrospectively presented in each of 2018 and 2017.

The “Other” category does not constitute a reportable segment. It includes the results of a number of other operating segments that do not meet the quantitative thresholds for separate reporting, such as Turkmenistan, Armenia, System Integrator, Satellite TV, Navigation Information Systems, Metro-Telecom, Stream LLC, NVision Czech Republic, Litebox, eSports, MTS Energo, IT Grad, Belarus and headquarters.

Total revenues of our segments for the years ended December 31, 2019, 2018, 2017 were as follows:

	Year Ended December 31,		
	2019	2018	2017
	(in millions of Russian rubles)		
Total revenues			
Russia convergent	400,379	392,170	370,982
Moscow fixed line	38,851	38,846	39,033
MTS Bank	31,185	12,072	—
HQ and other	37,594	32,452	30,508
Eliminations ⁽¹⁾	<u>(31,903)</u>	<u>(24,074)</u>	<u>(22,605)</u>
Total revenues as reported	<u>476,106</u>	<u>451,466</u>	<u>417,918</u>

(1) Represents the elimination of inter-company transaction results, primarily interconnect, roaming, rent of channels and telecommunications infrastructure and integration.

Certain Operating Data

Below we provide certain operating data not included in our financial statements that we believe is useful for evaluating our business and results. The data focuses primarily on our mobile operations, particularly in Russia, which comprise the most significant share of our revenue in the periods presented, and is among the information routinely reviewed by our management as part of their regular evaluation of our performance.

Mobile Subscriber Data

The following table shows our mobile subscribers by country as of the dates indicated:

	At December 31,		
	2019	2018	2017
	(in millions)		
Subscribers⁽¹⁾			
Russia	79.1	78.0	78.3
Armenia	2.2	2.1	2.1
Total consolidated	<u>81.3</u>	<u>80.1</u>	<u>80.4</u>
MTS Belarus (unconsolidated)	5.6	5.5	5.2

(1) We define a subscriber as an organization or individual, whose SIM-card shows traffic-generating activity or accrues a balance for services rendered or is replenished or topped off over the course of any three-month period, inclusive within the reporting period, and was not blocked at the end of the period.

We had approximately 79.1 million subscribers in Russia as of December 31, 2019, and a leading 30% market share of total mobile cellular subscribers in Russia, according to AC&M-Consulting. Overall penetration in Russia was at approximately 178%. In addition, as of December 31, 2019, we had approximately 2.2 million subscribers in Armenia, representing 58.5% market share, according to our estimates.

For a description of our fixed line subscriber base, see “Item 4. Information on Our Company—B. Business Overview—Fixed Line Services.”

Revenues

Our principal sources of revenue are:

- mobile service revenues, which include usage and interconnect fees, value-added services fees, monthly subscription fees, roaming fees and connection fees;
- fixed service revenues from individual and corporate subscribers, which include monthly subscription fees, traffic charges, connection fees, revenues from broadband Internet connection and data transmission services, revenues from pay-TV and from sales of end-user telecommunications equipment. Fixed service revenues also include revenues received from operators, which comprise revenues from the renting out of channels and traffic charges and revenues from the renting out of telecommunications infrastructure;
- revenues from sales of handsets, accessories and other goods;
- integration services, including the resale of software products; and
- banking services.

Our mobile tariffs in Russia are not regulated by any organization or governmental authority. The interconnect fees we charge to other operators for terminating calls interconnecting to our mobile network are not regulated in Russia. See also “Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business—If we are found to have a dominant position in the markets where we operate and are determined to have abused this position, the FAS may be entitled to regulate our subscriber tariffs and impose certain restrictions on our operations” and “—If we or any of our mobile network operator subsidiaries operating in Russia are identified as an operator occupying a “substantial position,” the regulator may reduce our interconnect tariffs which, in turn, may have a material adverse effect on our financial condition and results of operations.”

Certain of our fixed service tariffs are regulated, including tariffs charged by Moscow incumbent operator MGTS for installation fees, monthly subscription fees and local call charges, as well as interconnect and traffic transit tariffs. The interconnect tariffs charged by us are also regulated by the Federal Agency on Communications.

Service revenues

Subscription, voice and data revenues primarily include monthly fees paid by our users of tariff plans which contain fixed volume of services such as minutes of usage, sms, internet traffic and other services. The over-the-limit consumption of services are charged to our subscribers depending on a tariff plan. Subscription, voice and data revenues as a percentage of our total revenues were 50.9% in 2019, 51.8% in 2018, 55.3% in 2017. We expect subscription, voice and data revenues as a percentage of our total operating revenue to remain stable in 2020.

Interconnect fees, which are fees for connecting users of other operators’ fixed line and wireless networks to our network, remained stable and comprised 10.5% in 2019, 10.5% in 2018 and 10.5% of our total revenues in 2017, respectively. We expect it to remain stable in 2020.

Roaming fees for our own subscribers include amounts charged to our subscribers while traveling out of our service area. Roaming fees for own subscribers as a percentage of our total revenues represented 4.0% in 2019, 5.2% in 2018 and 6.0% in 2017. We expect that our roaming fees will decrease as a percentage of our total operating revenue, due to individually insignificant changes in the types of revenue.

Fixed service revenues which consist primarily of fixed line telephony services, broadband internet and pay-TV services, comprised 11.8%, 12.4%, 13.4% of our total revenues in 2019, 2018 and 2017, respectively. In absolute terms, we expect an increase in the number of internet and TV users to stimulate further growth of fixed service revenues due to consequent improvement in quality and uptake of services provided.

Banking service revenue which consist primarily of lending services, business funding options, deposit products, cash settlement services, trade finance, foreign currency control, bank cards, payroll projects, merchant acquiring and investment services provided by MTS Bank, comprised 6.6% and 2.7% of our total revenues in 2019 and 2018, respectively. We expect banking service revenues to increase as a percentage of our total operating revenue due to strengthening of MTS Bank's position in the retail segment, as a result of designing of and offering suitable and attractive financial services to our customers.

Other sources of revenue comprised less than 5% of our service revenues.

Sales of Goods

Sales of goods primary consist of the sale of handsets and accessories and sales of software products and as a percentage of total revenue comprised 14.6% in 2019, 15.2% in 2018 and 12.5% in 2017. The decrease both in absolute terms and as a percentage of revenue in 2019 as compared to 2018 is attributable to a decrease in our share of handsets retail market. We expect that sales of goods will remain stable as a percentage of total revenue, as smartphones and devices sales support the usage of our voice and data tariff plans. We do not subsidize handset sales in Russia.

Cost of Services

Interconnect and line rental. Interconnect and line rental charges include charges payable to other operators for access to, and use of their networks, which are necessary in the course of providing service to our subscribers. Interconnect charges as a percentage of our total revenues represented 10.3% in 2019, 10.2% in 2018 and 10.6% in 2017. Line rental charges as a percentage of our total revenues represented 0.5% in 2019, 0.3% in 2018 and 1.7% in 2017. Both interconnect and line rental charges remained stable in 2019 as compared to 2018.

We expect that interconnect expenses payable by us to other operators for termination of traffic generated by our subscribers will slightly increase. Primarily, this increase will likely be attributable to the growth in the volume of traffic resulting from our efforts to encourage greater usage through the introduction of new services, which may be supported by marketing campaigns.

We expect line rental costs to increase due to termination of a number of line rental contracts in 2020 the terms of which satisfied the provisions of IFRS 16 to be classified as a "lease."

Roaming expenses. Roaming expenses consist of amounts charged by other cellular operators under agreements for roaming services provided to our subscribers while outside our service area. Roaming expenses as a percentage of our total revenues represented 1.8% in 2019, 2.2% in 2018 and 2.5% in 2017. The decrease of roaming expenses as a percentage of our total revenues was largely due to the impact of cost optimization.

Cost of banking services. Cost of banking services consists primarily of interests on loans received from banks and other financial institutions and commission fees. Cost of banking services as a percentage of our total revenues represented 2.3% in 2019 and 1.0% in 2018.

Other direct costs.

Our other direct costs primary consist of:

- production staff's salary, bonuses and social contributions;
- network repair and maintenance;
- electricity charges; and
- payments for radio frequencies usage.

Our other direct costs remained relatively stable as a percentage of our total revenues and represented 3.2% in 2019, 3.4% in 2018 and 3.4% in 2017. Other direct costs as a percentage of revenue are expected to increase over time as a result of inflation.

Cost of goods

This type of expense includes primarily the cost of handsets and accessories sold to subscribers, the cost of SIM cards provided to our customers, the cost of software products sold and inventory obsolescence provision. Cost of handsets, accessories sold and SIM cards provided to customers as a percentage of our total revenues represented 11.6% in 2019, 12.1% in 2018 and 9.8% in 2017. The decrease in 2019 is attributable to decline in our market share.

Selling, general and administrative expenses

Our selling expenses comprise of all costs relating to the activities that do not directly increase the value of our products and services, but serve to secure sales. These costs consist primarily of:

- expenses for advertising and promotion;
- dealer commissions for the acquisition of new subscribers and cash collection; and
- personnel, utilities and maintenance costs incurred in the area of sales.

In 2019, 2018 and 2017, selling expenses comprised 9.7%, 9.4% and 12.0% of our total revenue, respectively. The slight increase of selling expenses in 2019 compared to 2018 was mainly attributable to increase of advertising and marketing costs and personnel costs as a result of acquiring new companies and expansion of the Group. The decrease of 2.6% in 2018 in comparison with 2017 related to capitalization of dealer commissions and rent expenses for our retail stores as a result of IFRS 15 and IFRS 16 implementation.

We retain some degree of flexibility to increase or decrease these expenses in any given period based on our requirements, strategy and the general economic environment.

For the structure of our dealer commissions please see "Item 4. Information on Our Company—B. Business Overview—Mobile Operations—Sales and Marketing—Sales and Distribution."

Our general and administrative expenses comprise of expenses attributable to the core administrative functions that cannot be allocated directly to the production or selling process. These consist primarily of:

- personnel costs;
- office maintenance expenses and rental of administrative premises;
- consulting expenses;
- taxes other than income taxes, e.g. property taxes;
- billing and data processing expenses; and

- other expenses of administrative nature.

General and administrative expenses as a percentage of our total revenues represented 9.3%, 9.1% and 9.6% in 2019, 2018 and 2017, respectively. The slight increase of 0.2% in general and administrative expenses in 2019 compared to 2018 related to raise in personnel costs related to acquisition of new companies and a number of employees growth. The decrease of 0.5% in the financial year 2018 compared to 2017 was mainly attributable to capitalization of rental expenses as a result of IFRS 16 implementation. We expect that general and administrative expenses as a percentage of revenue will remain stable.

Sundry Operating Income/Expenses

Our sundry operating income/expenses include:

- operating share of associates' profit;
- impairment of financial assets;
- impairment for goodwill and long-lived assets; and
- other operating expenses such as gain/losses on disposal of property, plant and equipment and intangible assets as well as any gain/losses resulting from stock-taking.

Sundry operating income/expenses as a percentage of our total revenues represented (0.8)%, (1.0)% and 0.5% as of December 31, 2019, 2018 and 2017, respectively. The slight decrease of sundry operating income in the financial year 2019 compared to 2018 was mainly attributable to increase of bank provisions as a result of portfolio growth. In increase of 1.5% in sundry operating income in 2018 compared to 2017 was mainly attributable to gain from sale or other disposal of our fixed assets. In 2017 sundry operating expenses amounted to RUB 2,258 million and included impairment of non current assets in Turkmenistan and Czech Republic in the amount of 3,204 million and RUB 571 million, respectively.

Depreciation of Property, Network Equipment and Amortization of Intangible Assets

Our expense for depreciation of property, network equipment and amortization of intangible assets as a percentage of our total revenues decreased to 20.2% for the year ended December 31, 2019 as compared to 21.1% of our total revenues for the year ended December 31, 2018. The decrease was mostly attributable to significant revenue growth. Our expense for depreciation of property, network equipment and amortization of intangible assets comprised 17.7% of our total revenues for the year ended December 31, 2017.

We expect our expense for depreciation of property, network equipment and amortization of intangible assets to remain relatively stable in 2020.

Finance costs

Our finance costs for 2019 increased by RUB 10,380 million, or 28.06%, to RUB 47,368 million from RUB 36,988 million for the year ended December 31, 2018. The increase was primarily attributable to effect arisen on the modification of debt agreements driven by improved loan terms (RUB 5,601 million) and increased indebtedness (RUB 4,779 million). Our finance costs for 2018 increased by RUB 10,977 million or 42.20% compared to 2017 and amounted to RUB 26,011 million. The increase was primarily attributable to the implementation of new standards: IFRS 16 "Leases," IFRS9 "Financial Instruments." Net of this effect, our finance costs for the financial year ended December 31, 2018 increased by RUB 1,963 million as a result of increased indebtedness.

We expect our finance costs to decrease in 2020.

Provision for Income Taxes

Taxation on income of Russian companies is regulated by a number of laws, government decrees and implementation instructions.

The income tax base for Russian companies is defined as income received from sales of goods and services reduced by the amount of expenses incurred in such operations with certain exceptions.

The statutory income tax rate in Russia is 20%. The effective tax rate applicable to our consolidated group in the year ended December 31, 2019, 2018 and 2017 was 23.6%, 20.0% and 25.8%, respectively. The effective tax rate differs from the statutory rate mainly as a result of items not liable for tax purposes, earnings distribution from subsidiaries, prior period tax effects and effect of the change in fair value of derivative financial instruments.

Certain Factors Affecting our Financial Position and Results of Operations

Currency fluctuations

A majority of our capital expenditure and a part of our liabilities and borrowings are either denominated in or tightly linked to the U.S. dollar or euro. A significant part of our financial liabilities, denominated in U.S. dollars, excluding trade accounts payables, is hedged through financial instruments with various banks. We conduct operations within the Russian Federation and Armenia, and we are therefore subject to currency fluctuations. The local currencies of these countries fluctuate significantly against the U.S. dollar and euro. As a result of the fluctuations we may incur significant currency exchange gains/losses which may adversely affect our net income.

Inflation

Our financial position and results of operations as reflected in our audited consolidated financial statements included elsewhere in this document have been influenced by inflation.

The Russian economy has been characterized by the following rates of inflation:

<u>Year</u>	<u>Inflation rate</u>
2012	6.6%
2013	6.5%
2014	11.4%
2015	12.9%
2016	5.4%
2017	2.5%
2018	4.3%
2019	3%

Source: Federal State Statistics Service.

Inflation rate in Armenia in 2019 was estimated at 1.4%.

We expect inflation-driven increases in costs to put pressure on our margins. While we could seek to raise our tariffs to compensate for such increase in costs, competitive pressures may not permit increases that are sufficient to preserve operating margins. See “Item 3. Key Information—D. Risk Factors—Risks Relating to our Financial Condition—Inflation could increase our costs and adversely affect our results of operations.”

Acquisitions

Our results of operations for the periods presented are significantly affected by acquisitions. Results of operations of acquired businesses are included in our audited consolidated financial statements for the periods after their respective dates of acquisition. See “Item 3. Key Information—A. Selected Financial Data.”

Below is a list of our major acquisitions during 2019-2017.

<u>Company</u>	<u>Type</u>	<u>Date of acquisition</u>	<u>Stake acquired</u>	<u>Purchase price</u>
2019				
MTS Bank	Banking services	February 2019	39.48%	11,409
Objedinennye Russkie Kinostudii (Kinopolis)	Movie complex	April 2019	100%	2,042
RIKT	Regional fixed-line operator	June 2019	97.4%	360
Narodnoje property complex	Administrative properties	August 2019	100%	329
MTS Bank	Banking services	December 2019	4.46%	1,446
				<u>15,586</u>
2018				
Kulturnaya Sluzhba (“Ponominalu.ru”) Moskovskaia Direktciia Teatralno-Kontcertnyh i Sportivno-Zrelischnyh Kass (“Ticketland.ru”)	Ticket distribution	January 2018	78.2%	321
MTS Bank	Banking services	February 2018	100%	3,190
Progressivniye Technologii	Fixed-line services	July 2018	28.6%*	8,273
Dekart	Administrative properties	August 2018	100%	395
Serebryaniy Bor	Administrative properties	October 2018	100%	5,242**
IT-Grad	Cloud services	December 2018	100%	1,711
				2,422
				<u>21,554</u>
2017				
Bashkortostan Cellular Communication	Regional mobile operator	July 2017	100%	292
Oblachny Retail	Retail software developer	October 2017	50.82%	590
Praliss Enterprises	eSport	December 2017	100%	313
				<u>1,195</u>

* Acquisition of 28.6% in MTS Bank in addition to the previously held stake of 26.6% allowed us to obtain control over the entity.

** This amount includes VAT at tax rate of 18%.

Results of Operations

Our management identified the following reportable segments: Russia convergent, Moscow fixed line and MTS Bank. See “—Segments.”

Intercompany eliminations presented below consist primarily of sales transactions between segments conducted in the normal course of operations.

Financial information by reportable segments is presented below:

	Year Ended December 31,		
	2019	2018	2017
Total revenues			
Russia convergent	400 379	392 170	370,982
Moscow fixed line	38 851	38 846	39,033
MTS Bank	31 185	12 072	
HQ and other	37 594	32 452	30,508
Eliminations ⁽¹⁾	(31 903)	(24 074)	(22,605)
Total revenues as reported	<u>476 106</u>	<u>451 466</u>	<u>417,918</u>
Costs of services, excluding depreciation and amortization shown separately below, and cost of goods			
Russia convergent	147 782	143,512	144,230
Moscow fixed line	11 632	11,754	13,799
MTS Bank	13 765	5,973	
HQ and other	29 593	25,080	22,566
Eliminations ⁽¹⁾	(23 888)	(18 137)	(19 464)
Cost of services and cost of goods as reported	<u>178 884</u>	<u>168 182</u>	<u>161 131</u>
Sundry operating expenses/(income)⁽²⁾			
Russia convergent	2 896	1,422	3,300
Moscow fixed line	(6 108)	(2,961)	(1,772)
MTS Bank	4 002	397	
HQ and other	(4 904)	(3,497)	594
Eliminations ⁽¹⁾	75	90	136
Sundry operating expenses/ (income) as reported	<u>(4 041)</u>	<u>(4,549)</u>	<u>2,258</u>
Selling, general and administrative expenses			
Russia convergent	62 522	59,402	69,690
Moscow fixed line	6 578	6,491	7,563
MTS Bank	8 864	3,643	
HQ and other	17 295	16,639	14,742
Eliminations ⁽¹⁾	(4 463)	(2 748)	(1 646)
Selling, general and administrative expenses as reported	<u>90 796</u>	<u>83 427</u>	<u>90 349</u>
Depreciation and amortization expenses			
Russia convergent	84 311	82,457	59,942
Moscow fixed line	9 506	10,867	10,642
MTS Bank	1 082	547	
HQ and other	3 632	3,662	3,530
Eliminations ⁽¹⁾	(2 252)	(2 147)	(174)
Depreciation and amortization expenses as reported	<u>96 279</u>	<u>95 386</u>	<u>73 940</u>
Operating profit			
Russia convergent	102 869	105 377	93,821
Moscow fixed line	17 244	12 695	8,801
MTS Bank	3 473	1 512	
HQ and other	(8 022)	(9 431)	(10,923)
Eliminations ⁽¹⁾	(1 376)	(1 132)	(1 458)
Operating profit as reported	<u>114 188</u>	<u>109 021</u>	<u>90 241</u>

- (1) Represents the elimination of inter-company transaction results, primarily interconnect, roaming, rent of channels and telecommunications infrastructure and integration.
- (2) For the purposes of this analysis “Sundry operating expenses/(income)” consist of allowance for doubtful accounts, impairment of non-current assets and goodwill, other operating expenses/(income), operating share of profit of associates and provision for investments in distressed banks.

Year Ended December 31, 2019 compared to Year Ended December 31, 2018

Revenues and cost of services and cost of goods

Consolidated revenues for the year ended December 31, 2019, increased by RUB 24,640 million, or 5.5%, to RUB 476,106 million from RUB 451,466 million for the year ended December 31, 2018. The principal reason for the growth was the acquisition of MTS Bank in the second half of 2018 which added revenue in the amount of RUB 17,778 million to our consolidated revenues, the large increase in the usage of voice and data tariffs by our subscribers (by RUB 8,403 million), which was mainly attributable to the increase in mobile internet penetration, an increase in usage of smartphones by our subscribers, active 3G and LTE network expansion and the consequent improvement of the quality and uptake of value-added services. The growth was also attributable to an increase in interconnect revenue by RUB 2,513 million due to an increase in the volume of traffic. The increase of our consolidated revenues for the year ended December 31, 2019 was partly offset by decrease in revenue from roaming services by RUB 4,673 million.

The decrease in our revenues from roaming fees of own subscribers by RUB 4,373 million in the year ended December 31, 2019 was due to the cancellation of the fees for incoming calls within the MTS network.

Consolidated cost of services and cost of goods for the year ended December 31, 2019 increased by RUB 10,702 million and amounted to RUB 178,884 million as compared to RUB 168,182 million for the year ended December 31, 2018 and comprised 37.5% and 37.2% as a percentage of consolidated revenues for the year ended December 31, 2019 and 2018, respectively. The acquisition of MTS Bank in the second half of 2018 added RUB 6,100 million to the growth of our consolidated cost of services and cost of goods for the year ended December 31, 2018. The increase in the consolidated cost of services and cost of goods for the year ended December 31, 2018 was also supported by the growth in interconnect and line rental expenses by RUB 3,992 million due to an increase in the volume of traffic.

Russia convergent revenues for the year ended December 31, 2019, increased by 2.1% to RUB 400,379 million from RUB 392,170 million for the year ended December 31, 2018. The increase in Russia convergent revenues in the year ended December 31, 2019, was primarily due to the growth in revenue from voice and data tariffs (RUB 8,295 million) which increased due to active promotion of such tariffs, significant volume of Internet traffic included and the constant quality improvement of services provided. Increase in interconnect revenues by RUB 2,694 million was driven by the growth in volume of incoming traffic. Russia convergent segment revenues from integration services increased by RUB 1,360 million due to newly acquired contracts.

The decrease of our revenues from roaming fees of own subscribers by RUB 4,359 million in the year ended December 31, 2019 was due to the cancellation of the fees for incoming calls within the MTS network.

Russia convergent cost of services and cost of goods for the year ended December 31, 2019, increased by 2.9% to RUB 147,782 million from RUB 143,512 million for the year ended December 31, 2018. The increase in Russia convergent cost of services and cost of goods is attributable to the growth in interconnect and line rental expenses by RUB 4,237 million due to an increase in the volume of traffic and an increase in salaries and social contribution expenses by RUB 1,509 million.

The overall increase in Russia convergent cost of services and cost of goods was partly offset by a decrease in roaming expenses by RUB 1,353 million which was caused by cost optimization initiatives.

Moscow fixed line revenues for the year ended December 31, 2019 remained stable and amounted to RUB 38,851 million as compared to RUB 38,846 million for the year ended December 31, 2018.

Moscow fixed line cost of services and cost of goods for the year ended December 31, 2019 remained stable and amounted to RUB 11,632 million from RUB 11,754 million for the year ended December 31, 2018.

MTS Bank revenues increased by RUB 19,113 million and amounted to RUB 31,185 million for the year ended December 31, 2019 and RUB 12,072 million for the period from the date of MTS Bank consolidation to December 31, 2018. Banking service revenues as a percentage of our total revenues represented 6.6% in 2019 and 2.7% in 2018.

MTS Bank cost of services increased by RUB 7,792 million and amounted to RUB 13,765 million for the year ended December 31, 2019 and RUB 5,973 million for the period from the date of MTS Bank consolidation to December 31, 2018. Cost of banking services as a percentage of our total revenues represented 2.9% in 2019 and 1.3% in 2018.

Other countries and business activities revenues for the year ended December 31, 2019, increased by RUB 5,142 million to RUB 37,594 million from RUB 32,452 million for the year ended December 31, 2018 due to acquisition of new companies, newly acquired contracts.

Other countries and business activities cost of goods for the year ended December 31, 2019, increased to RUB 29,593 million from RUB 25,080 million for the year ended December 31, 2018 due to acquisition of new companies, newly acquired contracts.

Sundry operating expenses/(income)

Consolidated sundry operating income for the year ended December 31, 2019, decreased by RUB 510 million in comparison with the previous year. We generated income of RUB 4,041 million and RUB 4,549 million for the year ended December 31, 2019 and 2018, respectively. These amounts comprised 0.8% and 1.0% as a percentage of consolidated revenue for the year ended December 31, 2019 and 2018, respectively. The primary reasons for the changes year-over-year are described below.

Russia convergent sundry operating expenses for the year ended December 31, 2019, increased by 104% or RUB 1,474 million to RUB 2,896 million from RUB 1,422 million for the year ended December 31, 2018 and comprised 0.7% and 0.4% of Russia convergent revenues for the year ended December 31, 2019 and 2018, respectively. The increase is attributable to the growth of expenses for RUB 903 million in connection with provision for doubtful debts (other receivables).

Moscow fixed line sundry operating income for the year ended December 31, 2019, increased by RUB 3,147 million to RUB 6,108 million from RUB 2,961 million for the year ended December 31, 2018. Moscow fixed line sundry operating income as a percentage of Moscow fixed line revenues increased to 15.7% for the year ended December 31, 2019, from 7.6% for the year ended December 31, 2018. The principal reason for the increase was gain recognized as a result of transaction with the sale of fixed assets and leaseback. See Note 30 to our audited consolidated financial statements for details.

MTS Bank sundry operating expenses for the year ended December 31, 2019, increased by RUB 3,605 million to RUB 4,002 million from RUB 397 million for the year ended December 31, 2018. Sundry operating expenses as a percentage of banking service revenues increased to 12.8% for the year ended December 31, 2019, from 3.3% for the year ended December 31, 2018.

Other countries and business activities sundry operating income for the year ended December 31, 2019, increased by RUB 1,407 million. We recognized income of RUB 4,904 million for the year ended December 31, 2019 and RUB 3,497 million for the year ended December 31, 2018. This income is the Group's share in the associate MTS Belarus.

Selling, general and administrative expenses

Consolidated selling, general and administrative expenses for the year ended December 31, 2019, increased by RUB 7,369 million and amounted to RUB 90,796 million as compared to RUB 83,427 million for the year ended December 31, 2018 and comprised 19.1% and 18.5% as a percentage of consolidated revenues for the year ended December 31, 2019 and 2018, respectively.

Russia convergent selling, general and administrative expenses for the year ended December 31, 2019 increased by RUB 3,120 million to RUB 62,522 million, or 15.6% of Russia convergent revenue, from RUB 59,402 million, or 15.1% of Russia convergent revenue, for the year ended December 31, 2018. Sales and marketing expenses increased by RUB 2,675 million mainly due to increase in advertisement and marketing expenses for RUB 1,660 million and increase in sales and marketing payroll for RUB 619 million. Utilities and maintenance expenses remained stable, while general and administrative expenses slightly increased by RUB 393 million.

Moscow fixed line selling, general and administrative expenses for the year ended December 31, 2019, increased slightly by RUB 87 million, to RUB 6,578 million, or 16.9% of Moscow fixed line revenue, from RUB 6,491 million, or 16.7% of Moscow fixed line revenue, for the year ended December 31, 2018. The increase is mainly attributable to the taxes other than income tax increase due to the low base effect of property tax in 2018.

MTS Bank selling, general and administrative expenses for the year ended December 31, 2019, increased by RUB 5,221 million, to RUB 8,864 million, or 29.7% of MTS Bank revenue, from RUB 3,643 million, or 30.7% of MTS Bank revenue, for the period from the date of MTS Bank's consolidation to December 31, 2018.

Other countries and business activities selling, general and administrative expenses for the year ended December 31, 2019, increased by 3.9% to RUB 17,295 million from RUB 16,639 million for the year ended December 31, 2018. Other countries and business activities selling, general and administrative expenses mainly increased by 2.4% due to expenses of newly acquired companies and expenses related to the expansion of activities of e-ticket business.

Depreciation and amortization expenses

Consolidated depreciation and amortization of property, network equipment, customer base, license costs, right-of-use assets, and other intangible assets for the year ended December 31, 2019, increased only by 0.9% to RUB 96,279 million from RUB 95,386 million for the year ended December 31, 2018.

Russia convergent depreciation and amortization for the year ended December 31, 2019, increased by 2.2% to RUB 84,311 million from RUB 82,457 million for the year ended December 31, 2018 mainly due to additions of new assets.

Moscow fixed line depreciation and amortization for the year ended December 31, 2019 decreased by 13% and amounted to RUB 9,506 million as compared to RUB 10,867 million for the year ended December 31, 2018 due to disposal of property and equipment during 2019.

MTS Bank depreciation and amortization for the year ended December 31, 2019, amounted to RUB 1,082 million. For the period from the date of MTS Bank's consolidation to December 31, 2018 depreciation and amortization amounted to RUB 547 million..

Other countries and business activities depreciation and amortization for the year ended December 31, 2019, decreased by 0.8% to RUB 3,632 million from RUB 3,662 million for the year ended December 31, 2018.

Operating profit

Consolidated operating profit grew by RUB 5,167 million to RUB 114,188 million in the year December 31, 2019 from RUB 109,021 million in the year ended December 31, 2018. The increase was mainly attributable to higher income from sale of our fixed assets as well as decrease of other countries and business activities operating loss.

Russia convergent operating profit for the year ended December 31, 2019 decreased by 2,508 and totaled to RUB 102,869 million against RUB 105,377 million for the year ended 2018. Russia convergent operating profit fell as a percentage of Russia convergent revenues to 25.7% for the year ended December 31, 2019, from 26.9% for the year ended December 31, 2018. The decrease was mainly attributable to the growth of expenses for RUB 903 million in connection with provision for doubtful debt, and increase in advertisement and marketing expenses for RUB 1,660 million.

Moscow fixed line operating profit for the year ended December 31, 2019, increased by 35.8% to RUB 17,244 million from RUB 12,695 million for the year ended December 31, 2018. Moscow fixed line operating profit increased as a percentage of Moscow fixed line revenue to 44.4% for the year ended December 31, 2019 from 32.7% for the year ended December 31, 2018. The strong increase related to the gain recognized as a result of transaction with the sale of fixed assets and leaseback and several cost optimization initiatives.

MTS Bank operating profit for the year ended December 31, 2019, increased by 129.7% to RUB 3,473 million from RUB 1,512 million for the period from consolidation date July 5, 2018 to December 31, 2018. MTS Bank operating profit decreased as a percentage of MTS Bank revenue to 11.1% for the year ended December 31, 2019 from 12.5% for the period from consolidation date July 5, 2018 to December 31, 2018.

Other countries and business activities operating loss for the year ended December 31, 2019, decreased by 14.9% to RUB 8,022 million from RUB 9,431 million for the year ended December 31, 2018 due to the acquisition of new companies and newly acquired contracts.

Currency exchange and transaction gains/losses

Consolidated currency exchange and transaction gain for the year ended December 31, 2019, was RUB 2,106 million, compared to the loss of 4,043 million for the year ended December 31, 2018. The gain recognized in the year ended December, 31 2019 was mainly attributable to the appreciation of the Russian ruble against U.S. dollar and euro during the year ended December 31, 2019.

Finance costs

Consolidated finance costs for the year ended December 31, 2019, increased by RUB 10,380 million, or 28.06%, to RUB 47,368 million from RUB 36,988 million for the year ended December 31, 2018. The increase was primarily attributable to effect arisen on the modification of debt agreements driven by improved loan terms (RUB 5,601 million) and increased indebtedness (RUB 4,779 million).

Equity in net income of associates

Non-operating share of the profit or loss of associates for the year ended December 31, 2019 increased by RUB 4,405 million to a income of RUB 3,496 million compared to a loss of RUB 909 million for the year ended December 31, 2018. The increase is primarily attributable to the gain on sale of equity investment in OZON of RUB 3,837 million and increase in profit of other individually insignificant associates in the year ended December 31, 2019.

Other expenses (income), net

Consolidated other expenses for the year ended December 31, 2019 increased to RUB 2,450 million, as compared to the expense of RUB 934 million for the year ended December 31, 2018 due to decrease of the gain from sale of foreign currencies in the year ended December, 31 2019.

Provision for income taxes

Consolidated provision for income taxes for the year ended December 31, 2019 increased by 2.3% to RUB 15,750 million from RUB 15,395 million for the year ended December 31, 2018 mainly due to an increase in the effective tax rate. The effective tax rate increased to 23.6% in the year ended December 31, 2019, from 20.0% in the year ended December 31, 2018 mainly as a result of increase in earnings distributions from subsidiaries, and as a result of an increase in expenses not deductible for tax purposes.

Profit attributable to the non-controlling interest

Profit attributable to the non controlling interest for the year ended December 31, 2019 decreased by 12.8% and amounted to RUB 858 million compared to profit attributable to the non-controlling interest of RUB 984 million for the year ended December 31, 2018 mainly as a result of an increase in ownership share in the Group associate MTS Bank in 2018 from 26.6% to 55.2% and obtaining control over the entity.

Profit attributable to the Group

Profit attributable to the Group for the year ended December 31, 2019, increased by RUB 47,393 million, or 692.0%, to RUB 54,241 million, compared to RUB 6,848 million for the year ended December 31, 2018. Profit as a percentage of revenues was 11.4% in the year ended December 31, 2019, and 1.5% in the year ended December 31, 2018. The increase of profit attributable to the Group in the amount of RUB 59,050 relates to low base of 2018 due to provision for fines and penalties with respect to the previously disclosed investigation into our former operations in Uzbekistan recognized in 2018, see also “Item 3. Key Information—D. Risk Factors—Legal Risks and Uncertainties—The inability of our subsidiaries in the countries in which we are present to maintain control over their operations and assets may adversely affect our business, financial condition and results of operations” regarding recent suspension of our services in Uzbekistan and “Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—7. Litigation—Uzbekistan.” The effect of the provision on our profit attributable to the Group was the increase of RUB 62,493 million. The negative effect of VF Ukraine sale amounted to RUB 3,976 million.

Year Ended December 31, 2018 compared to Year Ended December 31, 2017

Revenues and cost of services and cost of goods

Consolidated revenues for the year ended December 31, 2018, increased by RUB 33,548 million, or 8.0%, to RUB 451,466 million from RUB 417,918 million for the year ended December 31, 2017. The principal reason for the growth was the acquisition of MTS Bank which added RUB 12,072 million to our consolidated revenues, the large increase in the usage of voice and data tariffs by our subscribers (by RUB 2,592 million), which was mainly attributable to the increase in mobile internet penetration, an increase in usage of smartphones by our subscribers, active 3G and LTE network expansion and the consequent improvement of the quality and uptake of value-added services. The growth was also attributable to an increase in interconnect revenue by RUB 2,484 million due to an increase in the volume of traffic. The increase of our consolidated revenues for the year ended December 31, 2018 was also supported by the growth in revenues from sales of handsets and accessories by RUB 13,389 million and by the increase of revenues from sales of software products by RUB 3,292 million. The increase in sales of handsets and accessories by RUB 13,389 million resulted from active marketing initiatives and smartphones' penetration. The increase in sales of software products by RUB 3,292 million was attributable to the agreements with newly acquired customers.

The decrease in our revenues from roaming fees of own subscribers by RUB 1,933 million in the year ended December 31, 2018 due to the cancellation of the fees for incoming calls within the MTS network.

Consolidated cost of services and cost of goods for the year ended December 31, 2018 increased by RUB 7,050 million and amounted to RUB 168,181 million as compared to RUB 161,131 million for the year ended December 31, 2017 and comprised 37.3% and 38.6% as a percentage of consolidated revenues for the year ended December 31, 2018 and 2017, respectively. The increase in consolidated cost of services and cost of goods is attributable to the growth of cost of goods by RUB 17,778 million caused by the increase in sales of handsets and accessories and software products. The acquisition of MTS Bank added RUB 5,973 million to our consolidated cost of services and cost of goods for the year ended December 31, 2018. The increase in the consolidated cost of services and cost of goods for the year ended December 31, 2018 was also supported by the growth in interconnect expenses by RUB 1,603 million due to an increase in the volume of traffic. The increase was partly offset by the decrease in cost of services attributable to the implementation of IFRS 16 which allowed us to capitalize RUB 10,652 million rent expenses.

Russia convergent revenues for the year ended December 31, 2018, increased by 5.7% to RUB 392,170 million from RUB 370,982 million for the year ended December 31, 2017. The increase in Russia convergent revenues in the year ended December 31, 2018, was primarily due to the growth of revenues from sales of handsets and accessories by RUB 12,492 million, revenues from voice and data tariffs by RUB 4,468 million, revenues from handsets customization and commissions by RUB 3,110 million and interconnect revenues by RUB 2,350 million. Revenue from voice and data tariffs increased due to active promotion of such tariffs, significant volume of Internet traffic included and the constant quality improvement of services provided. Revenues from sales of handsets and accessories increased to RUB 58,741 million in the year ended December 31, 2018 from RUB 46,249 million in the year ended December 31, 2017 as a result of active marketing initiatives and continued expansion of our retail operations. The increase in revenues from handsets customization and commissions by RUB 3,110 million was supported by the growth in handsets sales. An increase in interconnect revenues by RUB 2,350 million was driven by the growth in volume of incoming traffic.

Russia convergent cost of services and cost of goods for the year ended December 31, 2018, decreased slightly by 0.5% to RUB 143,512 million from RUB 144,230 million for the year ended December 31, 2017. The decline in Russia convergent cost of services and cost of goods is attributable to the decrease in rent expenses by RUB 10,918 million and line rental expenses by RUB 4,679 million. This was caused by the implementation of IFRS 16. The decline was offset by the increase of cost of goods by RUB 14,010 million caused by the growth in sales of handsets and accessories and software products. The decrease in the Russia convergent cost of services and cost of goods for the year ended December 31, 2018 was also offset by the growth in interconnect expenses by RUB 1,873 million due to an increase in the volume of traffic.

Moscow fixed line revenues for the year ended December 31, 2018, slightly decreased and amounted to RUB 38,846 million as compared to RUB 39,033 million for the year ended December 31, 2017. The principal reason for the decline was a decrease in number of users of fixed line voice services.

Moscow fixed line cost of services and cost of goods for the year ended December 31, 2018, decreased by 14.8% to RUB 11,754 million from RUB 13,799 million for the year ended December 31, 2017. The decline in Moscow fixed line cost of services and cost of goods is attributable to the implementation of IFRS 16.

MTS Bank revenues amounted to RUB 12,072 million for the period from the date of MTS Bank's consolidation to December 31, 2018. Banking service revenues as a percentage of our total revenues represented 2.5% in 2018.

MTS Bank cost of services amounted to RUB 5,973 million for the period from the date of MTS Bank consolidation to December 31, 2018. Cost of banking services as a percentage of our total revenues represented 3.4% in 2018.

Other countries and business activities revenues for the year ended December 31, 2018, increased by RUB 1,944 million to RUB 32,452 million from RUB 30,508 million for the year ended December 31, 2017 due to the depreciation of national currencies against Russian ruble.

Other countries and business activities cost of goods for the year ended December 31, 2018, increased to RUB 25,080 million from RUB 22,566 million for the year ended December 31, 2017 due to the depreciation of national currencies against Russian ruble.

Sundry operating expenses/(income)

Consolidated sundry operating expenses for the year ended December 31, 2018, decreased by RUB 6,807 million. We generated income of RUB 4,549 million and expense of RUB 2,258 million for the year ended December 31, 2018 and 2017, respectively. These amounts comprised (1.0)% and 0.5% as a percentage of consolidated revenue for the year ended December 31, 2018 and 2017, respectively. The primary reason for the change year-over-year was due to the long-lived assets impairment in Turkmenistan and NVision Czech Republic in the amount of RUB 3,775 million for the year ended December 31, 2017.

Russia convergent sundry operating expenses for the year ended December 31, 2018, decreased by 56.9% or RUB 1,878 million to RUB 1,422 million from RUB 3,300 million for the year ended December 31, 2017 and comprised 0.4% and 0.9% of Russia convergent revenues for the year ended December 31, 2018 and 2017, respectively. The decline is attributable to the growth of income in the amount of RUB 636 million in connection with acquisition of the companies "Praliss," "Ticketland," "Ponominalu" and MTS Bank.

Moscow fixed line sundry operating income for the year ended December 31, 2018, increased by RUB 1,189 million to RUB 2,961 million from RUB 1,772 million for the year ended December 31, 2017. Moscow fixed line sundry operating income as a percentage of Moscow fixed line revenues increased to 7.6% for the year ended December 31, 2018, from 4.5% for the year ended December 31, 2017. The principal reason for the increase was growth of income in connection with the sale of fixed assets.

MTS Bank sundry operating expenses amounted to RUB 397 million for the period from the date of MTS Bank consolidation to December 31, 2018. Sundry operating expenses as a percentage of banking service revenues represented 3.3% in 2018.

Other countries and business activities sundry operating income for the year ended December 31, 2018, increased by RUB 4,091 million. We recognized income of RUB 3,497 million for the year ended December 31, 2018 as compared to the loss of RUB 594 million for the year ended December 31, 2017. The income recognized is attributable to impairment of long-lived assets in Turkmenistan and NVision Czech Republic in the amount of RUB 3,775 million for the year ended December 31, 2017.

Selling, general and administrative expenses

Consolidated selling, general and administrative expenses for the year ended December 31, 2018, decreased by RUB 6,922 million and amounted to RUB 83,427 million as compared to RUB 90,349 million for the year ended December 31, 2017 and comprised 18.5% and 21.6% as a percentage of consolidated revenues for the year ended December 31, 2018 and 2017, respectively.

Russia convergent selling, general and administrative expenses for the year ended December 31, 2018 decreased by RUB 10,288 million to RUB 59,402 million, or 15.1% of Russia convergent revenue, from RUB 69,690 million, or 18.8% of Russia convergent revenue, for the year ended December 31, 2017. Sales and marketing expenses decreased by RUB 7,968 million mainly due to decrease in dealer commissions by RUB 2,548 million as a result of the adoption of IFRS 15 “Revenue from contracts with customers” from January 1, 2018 and decrease in utilities and maintenance expenses by RUB 6,424 million due to adoption of IFRS 16 “Leases” from January 1, 2018. General and administrative expenses decreased by RUB 1,371 million mainly due to decrease in rental expenses due to adoption of IFRS 16 “Leases” from January 1, 2018.

Moscow fixed line selling, general and administrative expenses for the year ended December 31, 2018, decreased by RUB 1,072 million, to RUB 6,491 million, or 16.7% of Moscow fixed line revenue, from RUB 7,563 million, or 19.4% of Moscow fixed line revenue, for the year ended December 31, 2017. Taxes other than income tax as a percentage of Moscow fixed line revenues decreased to 1.3% for the year ended December 31, 2018 compared to 2.3% for the year ended December 31, 2017. Taxes decreased due to decrease of property tax as a result reconciliation with tax authorities. Salary expenses—general and administrative decreased by RUB 413 million and amounted to 5.5% of Moscow fixed line revenues for the year ended December 31, 2018 compared to 6.5% of Moscow fixed line revenues for the year ended December 31, 2017 mainly due to cessation of retirement program and additional remuneration schemes. Dealer commissions as a percentage of Moscow fixed line revenues decreased to 0.3% for the year ended December 31, 2018 compared to 0.7% for the year ended December 31, 2017 as a result of the adoption of IFRS 15 “Revenue from contracts with customers” from January 1, 2018.

MTS Bank selling, general and administrative expenses amounted to RUB 3,643 million for the period from the date of MTS Bank’s consolidation to December 31, 2018. Selling, general and administrative expenses as a percentage of banking service revenues represented 30.7% in 2018.

Other countries and business activities selling, general and administrative expenses for the year ended December 31, 2018, increased by 12.9% to RUB 16,639 million from RUB 14,742 million for the year ended December 31, 2017. Other countries and business activities selling, general and administrative expenses mainly increased by 8.1% due to expenses of newly acquired companies and by 2.8% due to promotional expenses on Satellite TV.

Depreciation and amortization expenses

Consolidated depreciation and amortization of property, network equipment, customer base, license costs and other intangible assets for the year ended December 31, 2018, increased by 29% to RUB 95,386 million from RUB 73,940 million for the year ended December 31, 2017 mainly due to adoption of IFRS 16 and IFRS 15. Excluding the effect of adoption of new standards on a like-for-like basis depreciation and amortization expense slightly increased by 2.6% mostly due to acquisitions of new assets during 2018.

Russia convergent depreciation and amortization for the year ended December 31, 2018, increased by 37.6% to RUB 82,457 million from RUB 59,942 million for the year ended December 31, 2017 mainly due to adoption of IFRS 16 and IFRS 15. On a like-for-like basis depreciation and amortization expense increased by 2.5% mainly due to additions of intangible assets.

Moscow fixed line depreciation and amortization for the year ended December 31, 2018 increased by 2.1% and amounted to RUB 10,867 million as compared to RUB 10,642 million for the year ended December 31, 2017. Adoption of IFRS 16 and IFRS 15 increased depreciation expense for 10.5%, but overall reduction of property and equipment during 2018 driven to decrease of 7.6%.

MTS Bank depreciation and amortization amounted to RUB 547 million for the period from the date of MTS Bank's consolidation to December 31, 2018.

Other countries and business activities depreciation and amortization for the year ended December 31, 2018, increased by 3.7% to RUB 3,662 million from RUB 3,530 million for the year ended December 31, 2017. The increase of 13.5% is attributable to adoption of IFRS 16 and IFRS 15, increase of 4.4% occurred due to large modernization of network base stations in Armenia, whereas the most part of the growth (16.8%) was levelled due to termination of operations in Turkmenistan.

Operating profit

Consolidated operating profit grew by RUB 18,780 million to RUB 109,021 million in the year December 31, 2018 from RUB 90,241 million in the year ended December 31, 2017. The effect of new IFRS standards implementation on operating profit for the financial year 2018 amounted to RUB 6,725 million. Acquisition of controlling stake and following consolidation of MTS Bank increased the operating profit by another RUB 1,291 million. The remaining increase was mainly attributable to strong performance of our Russia convergent segment, higher income from sale of our fixed assets as well as lower impairment of our non-current assets.

Russia convergent operating profit for the year ended December 31, 2018 increased by 11,556 and totaled to RUB 105,377 million against RUB 93,821 million for the year ended 2017. Russia convergent operating profit grew as a percentage of Russia convergent revenues to 27.0% for the year ended December 31, 2018, from 25.3% for the year ended December 31, 2017. The increase was mainly attributable to the effect from the implementation of new IFRS standard, which totaled to RUB 6,821 million (1.7% as a percentage of Russia convergent revenue for the financial year 2018).

Moscow fixed line operating profit for the year ended December 31, 2018, increased by 44.2% to RUB 12,695 million from RUB 8,801 million for the year ended December 31, 2017. Moscow fixed line operating profit increased as a percentage of Moscow fixed line revenue to 32.7% for the year ended December 31, 2018 from 22.5% for the year ended December 31, 2017. The increase related to implementation of new IFRS standard totaled to RUB 799 million (2.1% as a percentage of Moscow fixed line revenues for the financial year 2018). The remaining growth was mainly attributable to an increase of the gain realized from sale and other disposal of our fixed assets as well as reduction of personnel expenses due to headcount optimization.

MTS Bank operating profit consolidated from July 5, 2018 amounted to RUB 1,512 million and totaled to 10.9% as a percentage of banking service revenues for the respective period.

Other countries and business activities operating loss for the year ended December 31, 2018, decreased by 7.2% to RUB 9,431 million from RUB 10,923 million for the year ended December 31, 2017. The decrease in operating loss was mainly attributable to impairment of non-current assets of MTS Turkmenistan in the amount of RUB 3,204 million recognized in the financial year 2017.

Currency exchange and transaction gains/losses

Consolidated currency exchange and transaction loss for the year ended December 31, 2018, was RUB 4,043 million, compared to the gain of 818 million for the year ended December 31, 2017. The loss recognized in the year ended December, 31 2018 was mainly attributable to the weakening of the Russian ruble against U.S. dollar and euro during the year ended December 31, 2018.

Finance costs

Consolidated finance costs for the year ended December 31, 2018, increased by RUB 10,977 million, or 42.20%, to RUB 36,988 million from RUB 26,011 million for the year ended December 31, 2017. The increase was primarily attributable to the implementation of new standards IFRS16 “Leases,” IFRS9 “Financial Instruments” starting from January 1, 2018. Net of this effect, our finance costs for the financial year ended December 31, 2018 increased by RUB 1,963 million as a result of increased indebtedness.

Equity in net income of associates

Non-operating share of the profit or loss of associates for the year ended December 31, 2018 increased by RUB 473 million to a loss of RUB 909 million compared to a loss of RUB 436 million for the year ended December 31, 2017. The increase is primarily attributable to the increase in loss of other individually insignificant associates in the year ended December 31, 2018.

Other expenses (income), net

Consolidated other expenses for the year ended December 31, 2018 decreased to RUB 935 million, as compared to the expense of RUB 989 million for the year ended December 31, 2017 due to decrease of the gain from sale of foreign currencies and decrease in charity expenses in the year ended December, 31 2018.

Provision for income taxes

Consolidated provision for income taxes for the year ended December 31, 2018 decreased by 13.4% to RUB 15,395 million from RUB 17,780 million for the year ended December 31, 2017 mainly due to decrease in the effective tax rate. The effective tax rate decreased to 20.0% in the year ended December 31, 2018, from 25.8% in the year ended December 31, 2017 mainly as a result of decrease of prior period tax effects and decrease in earnings distributions from subsidiaries, and as a result of decrease in expenses not deductible for tax purposes.

Profit attributable to the non-controlling interest

Profit attributable to the non-controlling interest for the year ended December 31, 2018 increased by 79.6% and amounted to RUB 984 million compared to profit attributable to the non-controlling interest of RUB 548 million for the year ended December 31, 2017 as a result of an increase in ownership share in our associate MTS Bank from 26.6% to 55.4% and obtaining control over the entity.

Profit attributable to the Group

Profit attributable to the Group for the year ended December 31, 2018, dropped by RUB 49,194 million, or 87.8%, to RUB 6,848 million, compared to RUB 56,042 million for the year ended December 31, 2017. Profit as a percentage of revenues was 1.4% in the year ended December 31, 2018, and 12.7% in the year ended December 31, 2017. The decrease in the amount of RUB 59,050 relates to provision for fines and penalties with respect to the previously disclosed investigation into our former operations in Uzbekistan, see also “Item 3. Key Information—D. Risk Factors—Legal Risks and Uncertainties—The inability of our subsidiaries in the countries in which we are present to maintain control over their operations and assets may adversely affect our business, financial condition and results of operations” regarding recent suspension of our services in Uzbekistan and “Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—7. Litigation—Uzbekistan.” Net of the provision effect profit attributable to the Group increased by RUB 9,856 million or 17.6% and totaled to RUB 65,898 million. The positive effect of new IFRS standards implementation amounted to RUB 2,334 million.

B. Liquidity and Capital Resources

Our borrowings consist of notes and bank loans. Our bank loans consist of ruble- denominated borrowings totaling approximately RUB 159.4 billion as of December 31, 2019. We repaid approximately RUB 156.5 billion of indebtedness in 2019. As of December 31, 2019, the total amount available to us under our credit facilities amounted to RUB 363 billion. We had total indebtedness of approximately RUB 498.6 billion as of December 31, 2019, including lease obligations, compared to approximately RUB 528.7 billion as of December 31, 2018. Our total finance costs for the years ended December 31, 2019, 2018 and 2017, were RUB 47.4 billion, RUB 37.0 billion and RUB 26.0 billion, net of amounts of interest capitalized, respectively. See Note 23 to our audited consolidated financial statements for a description of our indebtedness.

Capital Requirements

We need capital to finance the following:

- capital expenditures, consisting of purchases of property, plant and equipment and intangible assets;
- acquisitions;
- repayment of debt and related interest payments;

- changes in working capital; and
- general corporate activities, including dividends.

We anticipate that capital expenditures, acquisitions, repayment of long-term debt and dividends will represent the most significant uses of funds for several years to come.

Our cash outlays for capital expenditures in 2019, 2018 and 2017 were RUB 91,736 million, RUB 99,568 million and RUB 76,431 million respectively. We expect to continue to finance most of our capital expenditure needs through our operating cash flows, and to the extent required, to incur additional indebtedness through borrowings or additional capital raising activities. Historically, a significant portion of our capital expenditures have been related to the installation and build-out of our network and expansion into new license areas. We expect that capital expenditures will remain a large portion of our cash outflows in connection with the continued installation and build-out of our network. In 2020 we expect capital expenditures to total to approximately up to RUB 90 billion, including data storage investment, with the reduction in spending from Ukraine offset by an expected ramp-up in new growth areas. We plan to finance our capital expenditures primarily through operating cash flows, and to the extent necessary, through additional external financing. The actual amount of our capital expenditures for 2020 may vary depending on subscriber growth, demand and network development, as well as currency volatility, vendor terms and the availability of external financing. The capital expenditure estimate for 2020 excludes expenditures that may be made in connection with acquisitions.

In July 2017, the Group acquired a 100% ownership interest in Bashkortostan Cellular Communication OJSC (“BCC”). BCC operates in the Republic of Bashkortostan and holds rights to use 450 MHz and 2,100 MHz radio frequencies. The acquisition enhances the Group’s spectrum of resources in the Republic of Bashkortostan. The purchase price comprised of cash payment and a contingent consideration, payable in 12 months from the acquisition date. In October 2017, the Group acquired a 50.82% of ownership interest in the Russian retail software developer Oblachny Retail LLC (“Oblachny Retail”), operating under trademark LiteBox, with a call and put option arrangement existing over another 49.18% of shares. The deal allows the Group to enter the cloud-based cash register market as a fully licensed fiscal data operator (“FDO”) and a provider of integrated digital cash management solutions for B2B clients. The purchase price comprised of cash payment and a contingent consideration, payable within 12 months from the acquisition date. As a part of business combination, the Group also contributed RUB 420 million to the share capital of the acquiree to provide funds for future development. The Group has elected to measure the non-controlling interests in the acquiree at fair value. In December 2017, the Group purchased a 100% ownership interest in Praliss Enterprises (“Praliss”), thus acquiring one of the world’s leading eSport clubs—Gambit Esports. The acquisition is a part of the Group’s 3D strategy. The purchase price comprised of cash payment, a contingent consideration, payable within 12 months from the acquisition date.

In January 2018, the Group acquired a 78.2% ownership interest in Kulturnaya Sluzhba LLC (“KS”), operating under the trademark Ponominalu.ru. The purchase price comprised a cash payment, deferred payment due within 12 months from the acquisition date, and a contingent consideration to be paid to the sellers if agreed upon financial targets are met by KS. In May 2019 we exercised the option agreement and purchased 667 shares (10.9% stake) of Cubichall Holdings Ltd that allowed us to become the owner of 89.1% stake. In February 2018, the Group acquired a 100% ownership interest in Moskovskaia Direktsiia Teatralno-Kontserntnyh i Sportivno-Zrelishchnyh Kass LLC (“MDTZK”), operating under the trademark Ticketland.ru. The purchase price comprised of both cash payment and deferred payment payable within 12 months from the acquisition date. These acquisitions allow the Group to enter the event ticketing market, whilst also broadening the Group’s suite of digital services. In August 2018, the Group acquired a 99% ownership interest in science and production association Progressivniye Technologii CJSC, a provider of fixed-line services in the cities of Zhukovskiy and Anapa. The acquisition of Progressivniye Technologii allows the Group to strengthen its position in these local markets and benefit from the expected synergies. The purchase price comprised of cash payment and deferred payment. In December 2018, the Group acquired a 100% ownership interest in IT-Grad 1 Cloud LLC (IT-Grad), one of the largest cloud services providers on the Russian IaaS market. The acquisition allows the Group to strengthen its presence in the Russian cloud services market. The purchase price comprised of cash payment of RUB 1,515 million and a contingent consideration. The Group is bound to pay the contingent consideration of RUB 691 million in 8 months after the acquisition date and of RUB 249 million in 18 months after the acquisition date following certain conditions, including the transfer of rights on tangible and intangible assets. In October 2018, the Group acquired Dekart property complex from Sistema for a total consideration of RUB 5,242 million. The property complex comprises office facilities leased by the Group, subsidiaries of Sistema and other counterparties, parking premises and engineering networks and operates under management agreement with Business-Nedvizhimost, a subsidiary of Sistema. The acquisition enables the Group to optimize its rental expenses and enhance its investment property portfolio.

In July 2018, the Group increased ownership share in the Group associate MTS Bank from 26.6% to 55.4% and obtained control over the entity. Consideration paid to Sistema for additional share in MTS Bank amounted to RUB 8,273 million. In February 2019, we have increased our ownership in MTS Bank to 94.97% and later in December 2019 we acquired additional 4.46% stake for RUB 1.4 billion. As a result of these transactions, MTS’ effective share in MTS Bank increased to 99.9% (including a 0.2% share in the bank held by our subsidiary PJSC MGTS and Bank’s ownership of its own treasury shares).

In June 2019, the Group acquired a 97.4% ownership interest in JSC RIKT (“RIKT”), a fixed-line operator in the Kemerovo region, for cash consideration of RUB 360 million. This acquisition allows the Group to increase its market share in Kemerovo region. In October 2019, the Group finalized the mandatory share repurchase from minority shareholders of RIKT and increased its share in RIKT to 100%. In April 2019, the Group acquired JSC Objedinennye Russkie Kinostudii (“Kinopolis”) from Business-Nedvizhimost, a subsidiary of Sistema, for total consideration of RUB 2,042 million. Kinopolis owns fully equipped movie complex in Saint Petersburg. In August 2019, the Group acquired Narodnoje property complex from Sistema for total consideration of RUB 329 million. The property complex comprises office facilities leased by the Group and hostel premises leased by a third party and operates under management agreement with Business-Nedvizhimost, a subsidiary of Sistema. The acquisition enables the Group to optimize its rental expenses and enhance its investment property portfolio. In November 2019, we acquired a 7.5% stake in JUST AI Limited, IT-company specialized in artificial intelligence technologies, machine learning and natural language processing. In December 2019, we acquired a 15.01% stake in SWIPGLOBAL Ltd, IT-company specialized in face recognition payment without using a smartphone or QR code. Both acquisitions are part of our CLV 2.0 strategy. In February 2020, we purchased 51% stake in each of Achemar Holdings Limited and Clarkia Holdings Limited, owners of the operational companies of “Zelenaya Tochka” Group, fixed-line operator in multiple regions of Russia for RUB 1,370 million. The purchase of 51% stake was accounted as investment in joint venture, with a call and put option arrangement existing over another 49% of shares.

We also used cash provided by operating activities as well as external credit facilities to finance our capital expenditures. We plan to finance future acquisitions through operating cash flows and additional borrowings. We may continue to expand our business through acquisitions. Our cash requirements relating to potential acquisitions can vary significantly based on market opportunities.

We expect to refinance our existing debt when it becomes due. For scheduled maturities of debt principal outstanding as of December 31, 2019 see Note 23 of our audited consolidated financial statements. We generally use the proceeds from our financing activities for our corporate purposes and refinancing existing indebtedness.

Sistema, which currently controls 44.36% of our total charter capital (effective ownership of 50.03%) and consolidates our results in its financial statements, has a significant amount of outstanding debt and requires funds for debt service. These funds may come, in part, from dividends paid by its subsidiaries, including us.

On March 21, 2019, our Board of Directors approved new dividend policy which sets a minimum payout of RUB 28.0 per ordinary MTS share (RUB 56.0 per ADR) per calendar year. In determining actual dividends payout, we will consider a number of factors, including cash flow from operations, capital expenditures and debt position. The policy will cover 2019 - 2021. Payments will continue to be made on a semi-annual basis. The Group may take decisions on the dividend payout based not only on annual results but also on interim results for three, six or nine months of the fiscal year. Annual and interim dividend payments, if any, must be recommended by the Board of Directors and approved by the shareholders.

We anticipate that any dividends we may pay in the future on the shares represented by the ADSs will be declared and paid to the depositary in rubles and will be converted into U.S. dollars by the depositary and distributed to holders of ADSs, net of the depositary’s fees, expenses, and applicable tax withholding. Accordingly, the value of dividends received by holders of ADSs will be subject to fluctuations in the exchange rate between the ruble and the dollar.

In accordance with Russian laws, earnings available for dividends are limited to profits determined under Russian statutory accounting regulations, denominated in Russian Rubles, after certain deductions.

As of December 31, 2019, 2018 and 2017 dividends payable were RUB 23.1 million, RUB 146.2 million and RUB 125.4 million, respectively, and included in the trade and other payables within the consolidated statement of financial position.

We generally intend to finance our dividend requirements through operating cash flows, and accordingly, our payment of dividends may make us more reliant on external sources of capital to finance our capital expenditures and acquisitions.

Capital Resources

We plan to finance our capital requirements through a mix of operating cash flows and financing activities, as described above. Our major sources of cash have been cash provided by operations and the proceeds of our U.S. dollar-denominated and ruble-denominated note issuances and loans. We expect that these sources will continue to be our principal sources of cash in the future.

The availability of financing is influenced by many factors, including our profitability, operating cash flows, debt levels, credit ratings, contractual restrictions and market conditions. We cannot assure you that we will be able to continue to obtain large amounts of financing in the future through debt or equity offerings, bank financings or otherwise.

As of December 31, 2019, our outstanding indebtedness consisted of the following notes and bank loans:

Notes

As of December 31, 2019, our notes consisted of the following:

	Currency	Interest rate (actual at December 31, 2019)	Amount
MTS International Notes due 2023	USD	5.00%	27,712
MTS International Notes due 2020	USD	8.625%	18,616
MTS PJSC Notes due 2025	RUB	8.00%	14,984
MTS PJSC Notes due 2022	RUB	7.70%	14,969
MTS PJSC Notes due 2023	RUB	6.85%	14,961
MTS PJSC Notes due 2026	RUB	7.90%	9,998
MTS PJSC Notes due 2022	RUB	9.00%	9,995
MTS PJSC Notes due 2021	RUB	8.85%	9,995
MTS PJSC Notes due 2021	RUB	7.10%	9,992
MTS PJSC Notes due 2025	RUB	7.25%	9,988
MTS PJSC Notes due 2024	RUB	8.70%	9,982
MTS PJSC Notes due 2022	RUB	6.45%	9,973
MTS PJSC Notes due 2023	RUB	6.85%	9,351
MTS PJSC Notes due 2024	RUB	8.60%	7,485
MTS PJSC Notes due 2022	RUB	8.40%	4,991
MTS PJSC Notes due 2031	RUB	7.50%	891
MTS PJSC Notes due 2020	RUB	7.90%	40
Other			12
Total notes			183,935
Less: current portion			(27,937)
Total notes, long-term			155,998

We have an unconditional obligation to repurchase certain MTS Notes at par value if claimed by the noteholders subsequent to the announcement of the sequential coupon. The dates of the announcement for each particular note issue are as follows:

MTS PJSC Notes due 2031	March 2021
MTS PJSC Notes due 2023	March 2020

Subject to certain exceptions and qualifications, the indentures governing our U.S. dollar-denominated notes due 2020 contain covenants limiting our ability to incur debt, create liens, sell or transfer lease properties, enter into loan transactions with affiliates, merge or consolidate or convey our properties and assets to another person, as well as our ability to sell or transfer any of our GSM licenses for the Moscow, St. Petersburg, Krasnodar and other license areas. In addition, if we experience a change in control, noteholders will have the right to require us to redeem the notes at 101% of their principal amount, plus accrued interest. In respect to MTS International Notes due 2023 and MTS International Notes due 2020 we are prohibited from having any judgment, decree or order for payment of money in an amount of \$75 million (RUB 4,643 million as of December 31, 2019) which remains unsatisfied for a period of more than 60 days without being appealed, discharged or waived (excluding the total criminal penalty under the agreements with the DOJ). If we fail to comply with these and the other covenants contained in the indentures, after certain notice and cure periods, the noteholders can accelerate the debt to be immediately due and payable.

Our ruble-denominated notes contain certain covenants limiting our ability to delist the notes from the quotation lists and delay coupon payments. We may from time to time seek to repurchase or redeem our outstanding notes through cash purchases and/or exchanges for new debt securities in open market purchases, privately negotiated transactions or otherwise. Such repurchases or exchanges, if any, will depend on market conditions, our liquidity requirements, contractual restrictions and other factors.

We were in compliance with our covenants as of December 31, 2019.

Bank loans

As of December 31, 2019, our loans from banks and other financial institutions consisted of the following:

	<u>Maturity</u>	<u>Interest rate (actual at December 31, 2019)</u>	<u>December 31, 2019</u>
<i>RUB-denominated:</i>			
Sberbank	2020 - 2024	7.50% - 7.91%	103,832
VTB	2021 - 2024	6.75% - 7.20%	43,893
Other	2020 - 2025	Various	11,659
			159,384
Total bank and other loans			159,384
Less: current portion			<u>(43,809)</u>
Total bank and other loans, long-term			<u>115,575</u>

See also Note 23 to our audited consolidated financial statements.

Our loans are subject to certain restrictive covenants, including, but not limited to, negative pledges, certain financial ratios, limitations on dispositions of assets and limitations on transactions with associates, requirements to maintain ownership in certain subsidiaries, maintain certain contracts or licenses, maintain assets of certain value and to maintain a certain level of deposits in accounts at our creditor banks. In addition, there are restrictions on the granting of loans and guarantees and the incurrence of debt the purpose of which is to facilitate us paying or making any dividend or other payment or distribution of any kind on or in respect of any of our shares or to undertake any form of capital reduction. Some loans also include an event of default involving an unsatisfied judgment against us in excess of \$250 million (RUB 15,476 million as of December 31, 2019) for a period of over 180 consecutive calendar days (excluding the total criminal penalty under the agreements with the DOJ). We were in compliance with our loan covenants as of December 31, 2019.

The following table presents the aggregate scheduled maturities of debt principal outstanding as of December 31, 2019:

	<u>Notes</u>	<u>Bank loans and other debt</u>
Payments due in the year ending December 31,		
2020	39,847	56,975
2021	32,430	33,156
2022	50,344	11,232
2023	49,797	7,256
2024	21,069	100,019
Thereafter	37,339	—
Contractual undiscounted cash flows	230,826	208,638
Less: unamortized debt issuance costs	(243)	—
Less: interest	(46,648)	(46,979)
Less: debt modification	—	(2,275)
Total debt	183,935	159,384

In addition, we had lease obligations in the amount of RUB 155,308 million and RUB 160,552 million as of December 31, 2019 and 2018, respectively. The terms of our material lease obligations are described in Note 24 to our audited consolidated financial statements.

In addition, Sistema, which currently controls 44.36% of our total charter capital (effective ownership of 50.03%) and consolidates our results in its financial statements, is subject to various covenants in certain of its credit facilities which impose restrictions on Sistema and its restricted subsidiaries, including us, with respect to, among others, incurrence of indebtedness and liens. See “Item 3. Key Information—D. Risk Factors—Risks Relating to our Financial Condition—Indentures relating to some of our notes contain, and some of our loan agreements and Sistema’s loan agreements contain, restrictive covenants, which limit our ability to incur debt and to engage in various activities.”

Consolidated Cash Flow Summary

A summary of our cash flows and cash outlays were as follows:

	2019	2018	2017
	(amounts in million RUB)		
Cash flows from:			
Net cash provided by operating activities	106,652	154,390	144,640
Net cash used in investing activities	(29,554)	(78,389)	(81,510)
Net cash used in financing activities	(120,448)	(25,924)	(50,445)
Effect of exchange rate changes on cash and cash equivalents	(2,655)	3,412	(569)
Net increase/(decrease) in cash and cash equivalents	<u>(46,005)</u>	<u>53,489</u>	<u>12,116</u>
Cash outlays for:			
Capital expenditures ⁽¹⁾	(91,736)	(99,568)	(76,431)
Acquisition of subsidiaries, net of cash acquired	(2,052)	(3,444)	(367)
Disposal of subsidiaries, net of cash disposed	37,386	619	—
Cash payments for the acquisition of subsidiaries under common control and non-controlling interests	(15,312)	(13,242)	—
Cash inflow from sale and liquidation of associates	3,067	—	—

(1) Includes acquisitions of property, plant and equipment and intangible assets

For the year ended December 31, 2019, net cash provided by operating activities was RUB 106,652 million, a decrease of 30.9% from the year ended December 31, 2018. The decrease in amount of RUB 55,607 million related to payment of fines and penalties under investigation into former operations in Uzbekistan. The remaining increase in amount of RUB 7,869 million or 5.1% was partially driven by MTS Bank activities, which contributed RUB 10,513 million of the increase.

Net cash used in investing activities for the year ended December 31, 2019 totaled to RUB 29,554 million, a decrease of 62.3% in comparison with 2018. Positive effect from proceeds related to sale of our Ukraine operations and share in Ozon in 2019 amounted to RUB 37,386 million and RUB 3,000 million, respectively. In addition, our capital expenditures declined by RUB 7,835 million (last year we invested RUB 7,559 million to acquire data center Avantage). We also spent RUB 5,188 million less on acquisition of subsidiaries and associates in 2019. The negative impact from cash flows related to our swap contracts came to RUB 9,351 million.

Net cash used in financing activities for the year ended December 31, 2019 increased by RUB 94,524 million or 364.6.2%, and totaled to RUB 120,448 million. The increase was mainly driven by cash flows related to our debt. We repaid RUB 108,641 million more of our debt than in 2018. At the same time proceeds from loans and issuance of notes were by RUB 12,365 million higher than in 2018.

For the year ended December 31, 2018, net cash provided by operating activities was RUB 154,390 million, an increase of 6.7% from the year ended December 31, 2017. The increase was mainly attributable to the effect of IFRS 15 and IFRS 16 implementation, which led to reclassification of cash flows related to capitalized contract costs and part of rental payments to investing and financing activities, respectively. On like to like basis, net cash provided by operating activities for 2018 financial year decreased by 7,341 million or 5.1% and totaled to RUB 137,299 million. The main negative effect resulted from acquisition of controlling stake and further consolidation of MTS Bank, the operating cash outflow related to bank activities totaled to RUB 9,922 million or 6.9% of the decrease.

Net cash used in investing activities for the year ended December 31, 2018 decreased by RUB 3,121 million or 3.8% and totaled to RUB 78,389 million. The decrease in amount of RUB 14,963 million related to lower investing in deposits, traded debt securities and assets in trust management of Sistema-Capital. At the same time the inflows from investing in traded securities and assets in trust management increased by RUB 13,211 million, including RUB 4,490 million from MTS Bank activities. Other positive effect resulted from cash inflows from our swaps and forward contracts, which amounted to RUB 6,892 million. Our capital expenditures in the financial year 2018 increased by RUB 23,137 million including through RUB 7,559 million related to purchase of data center from Avantage, RUB 5,527 million spent for acquisition of 4G licenses in Ukraine as well RUB 959 million of MTS Bank capital expenditures. In 2018, we also spent RUB 6,225 more on acquisition of subsidiaries and associates (thereof RUB 3,190 million for Ticketland, RUB 2,998 million for Ozon). Cash paid for capitalized contract costs reclassified from operating activities as a result of IFRS 15 implementation totaled to RUB 3,855 million.

Net cash used in financing activities decreased by RUB 24,521 million or 48.6% from 50,445 million for the year ended December 31, 2017 to RUB 25,924 million for the year ended December 31, 2018 mainly due to increase in borrowed funds. In 2018, our proceeds from loans and notes grew by RUB 52,414 million. The positive effect was offset by cash outflows related to acquisition of subsidiaries under common control, including RUB 6,872 million, RUB 4,658 million and RUB 1,711 million spent for purchase of MTS Bank, Dekart and Serebryaniy Bor, respectively. Rental payments reclassified from operating activities as a result of IFRS 16 implementation totaled to RUB 13,234 million.

Liquidity

As of December 31, 2019, we had total cash and cash equivalents of RUB 38,070 million (RUB 32,608 million in rubles, RUB 2,751 million in euros, RUB 1,014 million in U.S. dollars, RUB 430 million in Ukrainian hryvnias, RUB 419 million in Turkmenistan manat and RUB 848 million in other currencies). In addition, as of December 31, 2019, we had short-term investments of RUB 25,618 million, mostly in form of investments in mutual funds and debt securities (assets in Sistema-Capital trust management) as well as deposits. We also had RUB 363,000 million available under existing credit facilities as of December 31, 2019. For a description of our outstanding external financing, see Note 23 to our audited consolidated financial statements.

As of December 31, 2019, we had a working capital deficit of RUB 153,869 million compared to a deficit of RUB 26,537 million as of December 31, 2018. The increase primarily related to increase of current portion of our debt by RUB 68,683 million as well as decrease of cash and cash equivalents by RUB 46,006 million. We expect to repay all our debts as they become due from our operating cash flows or through re-financings. We believe that our operating cash flows, together with our plans for external financing, will provide us with sufficient funds for our present requirements.

Russian law requires that dividends can only be paid in an amount not exceeding net profits as determined under Russian accounting standards, denominated in rubles, after certain deductions. In addition, dividends may only be paid if the value of the company's net assets is not less than the sum of the company's charter capital, the company's reserve fund and the difference between the liquidation value and the par value of the issued and outstanding preferred stock of the company, if any, as determined under Russian accounting standards. Our net income under Russian accounting standards for the years ended December 31, 2019 and 2018 that was distributable under Russian legislation amounted to RUB 91,088 million and RUB 83,575 million respectively.

Credit Rating Discussion

Our credit ratings impact our ability to obtain short- and long-term financing and the cost of such financing. In determining our credit ratings, the rating agencies consider a number of factors, including our operating cash flows, total debt outstanding, commitments, interest requirements, liquidity needs and availability of liquidity. Other factors considered may include our business strategy, the condition of our industry and our position within the industry and the strategy, activity and/or credit rating of Sistema. Although we understand that these and other factors are among those considered by the rating agencies, each agency might calculate and weigh each factor differently. See “Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business—The controlling shareholder has a possibility to determine certain decisions of our governing bodies.”

Accounting Policies

Please refer to notes in our audited consolidated financial statements included elsewhere in this document.

Recent Accounting Pronouncements

Please refer to note 2 in our audited consolidated financial statements included elsewhere in this document.

C. Research and Development, Patents and Licenses, etc.

Not applicable.

D. Trend Information

Sales

In 2019, our revenues in Russia increased by 2.1% . Our mobile subscriber base in Russia and Armenia increased to 81.3 million subscribers as of December 31, 2019 from 80.1 million subscribers as of December 31, 2018. We expect our consolidated subscriber base to remain stable in 2020 as a result of continued marketing and advertising activity. We expect growth in the long term due to increased use of IoT (M2M) devices. We anticipate our consolidated revenues will remain stable in 2020 mainly based on growth in development of our broadband business and convergent services and growth in sales of handsets and accessories.

Average monthly minutes per subscriber in Russia slightly decreased and amounted to 385 minutes in 2019 as compared to 390 minutes in 2018. We expect an increase in megabytes per subscriber due to our efforts aimed at stimulating data usage.

Our subscriber base in Armenia remained stable and amounted to 2.2 million subscribers in 2019. We expect the growth of competition in these markets may, in turn, lead to decreasing tariffs, the addition of lower-value mass market subscribers and macroeconomic trends calling for “save mode.”

Russia is the largest market for us, both in terms of subscribers and revenue. In 2019, the underlying developments within this market remained generally positive and included high mobile penetration, strong demand for mobile services, generally positive usage trends and increased consumption of data services and value-added services. We focused our efforts to develop new competencies in the digital economy. We expect growth of business activity in Russia to continue throughout 2020.

We expect a challenging operating environment in 2020 due to continued macroeconomic and market volatility in the countries where we operate, increasing competition and significant changes in the mobile retail market in Russia. We also experienced significant exchange rate volatility and depreciation of local currencies in the countries where we operate against the U.S. dollar. The volatility and devaluation of local currencies against the U.S. dollar and/or euro may adversely affect our costs, including our non-cash foreign exchange loss due to the translation of our U.S. dollar- and euro-denominated debt. For further information on these risks, see “—A. Operating Results—Certain Factors Affecting our Financial Position and Results of Operations—Currency Fluctuations,” and “Item 3. Key Information—D. Risk Factors—Risks Relating to our Financial Condition—Inflation could increase our costs and adversely affect our results of operations.”

However, considering current macroeconomic conditions, our management believes that we will experience medium- and long-term growth. Due to the fact that the Russian market is highly penetrated, we believe the next wave of revenue growth for the overall market is likely to come from customers’ increasing use of data and convergent services.

Moscow Fixed Line Operations

In 2019 total revenue of MGTS increased by 0.01%. MGTS revenue from broadband Internet services increased by 21.2%. The increase was due to the high quality of services, favorable tariffs and optimization of work, which led to the transition of subscribers from competitors. MGTS revenue from digital television services in 2019 increased by 29.4%. The growth is mainly in the B2C market, where MGTS is the leader in terms of growth rates and the number of TV subscribers. In 2020, we expect further growth in revenue from broadband Internet and digital television services, mainly due to the launch of new products / tariffs, the development of sales channels and an increase in the subscriber base.

In 2019, revenue from MGTS fixed line services decreased by 9.6%. In 2019, the subscriber base of B2C and B2B segments decreased by 6.4% and 5.9%, respectively. We expect a further decrease in MGTS revenue from fixed-line voice services due to a reduction in the subscriber base in 2020.

In 2019, MGTS’ revenue from data services in B2G segment decreased by 34% due to the termination of some contracts with government customers. In 2020, we do not expect significant reduction of MGTS’ revenue from data services in B2G segment.

Churn

We define churn as the total number of subscribers who cease to be a subscriber during the period (whether involuntarily due to non-payment or voluntarily), expressed as a percentage of the average number of our subscribers during that period.

A vast majority of our subscribers are prepaid subscribers with no contractual commitment to us. As a result, these subscribers have unfettered freedom to migrate between operators at their convenience. This freedom, combined with the relative ease with which subscribers can obtain SIM cards, contributes to churn and increasing penetration levels in the markets where we operate.

The churn rate is highly dependent on competition in our license areas and those subscribers who migrate as a result of such competition. Our churn rate in Russia remained relatively stable at around 34% for the year ended December 31, 2019. We continued to offer our popular tariff plans “SMART” (integrated voice and data bundles): “My Smart,” “X” for Youth segment, “Tarifische” with unlimited Internet and “Our Smart.” We expect that the possibility of choosing traffic bundles, connecting of converged services and other our activities will increase customer loyalty and allow us to keep churn rate under control in 2020.

Moscow Fixed Line Operations Churn

Reducing churn and increasing customer loyalty are among the most important areas of MGTS activity. The outflow speed is different for different services. Fixed-line voice services are a fundamental MGTS service. The outflow rate for MGTS fixed line services increased by 0.8% to 6.9% during the year ended December 31, 2019, compared with 6.1% for the year ended December 31, 2018. MGTS intends to prevent an increase in the outflow rate for fixed line services in 2020 through fixed and mobile offer packages.

The outflow level of MGTS broadband Internet access services increased to 16.18% during the year ended December 31, 2019, compared with 9.96% for the year ended December 31, 2018. The outflow rate of MGTS digital television services increased to 17.8% during the year ended December 31, 2019, compared with 12.6% for the year ended December 31, 2018. MGTS plans to increase customer loyalty in 2020 in order to strengthen its leading position in the market.

E. Off-balance Sheet Arrangements

We believe that our existing off-balance sheet arrangements do not have and are not reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

Obligations under derivative contracts

We regularly enter into fixed to variable interest rate swaps to eliminate the exposure of changes in value of debt obligations. Interest rate swap contracts outstanding December 31, 2019 mature in 2020.

In addition to the above, we have also entered into several cross currency interest rate swap agreements. Most of these contracts hedged the risk of both interest rate and currency fluctuations and assumed periodic exchanges of interest payments or both principal and interest payments from RUB denominated amounts to USD denominated amounts to be exchanged at a specified rate. The rate was determined by the market spot rate upon issuance. Each qualifying for cash flow hedge accounting cross-currency interest rate swap matches the exact maturity dates of the underlying debt allowing for highly effective hedges. Cross currency interest rate swap contracts mature in 2023 - 2024.

E. Tabular Disclosure of Contractual Obligations

We have various contractual obligations and commercial commitments to make future payments, including debt agreements, capital lease obligations (including interest) and certain committed obligations. The following table summarizes our future obligations under these contracts due by the periods indicated as of December 31, 2019:

	Payments due by period				Total
	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years	
	(amounts in millions of RUB)				
Contractual Obligations: ⁽¹⁾					
Long-term principal debt obligations ⁽²⁾	72,020	83,498	155,319	35,000	345,837
Interest payments ⁽³⁾	24,802	43,664	22,822	2,339	93,627
MTS Bank deposits and liabilities	138,414	1,459	175	463	140,511
Lease obligations	27,650	50,003	50,002	106,411	234,066
Purchase obligations ⁽⁴⁾	36,869	7,681	583	1,529	46,662
Provision for decommissioning and restoration . .	126	—	—	4,662	4,788
Retirement and post-retirement obligation	243	14	18	45	320
Payments related to business acquisitions	910	—	—	—	910
Total	<u>301,034</u>	<u>186,319</u>	<u>228,919</u>	<u>150,449</u>	<u>866,721</u>

(1) Debt payments could be accelerated upon violation of covenants in our debt agreements.

(2) Does not include the amount of debt modification.

(3) Interest payments are calculated based on indebtedness as of December 31, 2019, scheduled maturities for the debt and interest rates effective as of December 31, 2019. We calculate interest payments on ruble-denominated notes until the dates of their respective put options, as described in Note 23 to our audited consolidated financial statements. Payments under interest rate swap agreements are excluded from the table as their amount and timing cannot be reasonably estimated.

(4) Includes future payments under purchase agreements to acquire property, plant and equipment, intangible assets, costs related thereto, inventory and services. We plan to finance our capital commitments through operating cash flow and additional borrowings.

Item 6. Directors, Senior Management and Employees

A. Directors and Senior Management

Key Biographies

Our directors and executive officers, their dates of birth and positions as of the date of this document were as follows:

<u>Name</u>	<u>Year of Birth</u>	<u>Position</u>
Felix V. Evtushenkov	1978	Chairman of the Board of Directors, Non-Executive Director
Artem I. Zassoursky ⁽³⁾⁽⁴⁾⁽⁵⁾	1979	Non-Executive Director
Alexey B. Katkov ⁽³⁾	1977	Non-Executive Director
Antonios T. Antoniou ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾	1958	Non-Executive Independent Director
Regina von Flemming ⁽¹⁾⁽²⁾⁽³⁾⁽⁵⁾	1965	Non-Executive Independent Director
Vsevolod V. Rozanov ⁽³⁾⁽⁴⁾⁽⁵⁾	1971	Non-Executive Director
Thomas Holtrop ⁽¹⁾⁽²⁾⁽⁴⁾⁽⁵⁾	1954	Non-Executive Independent Director
Valentin B. Yumashev ⁽¹⁾	1957	Non-Executive Independent Director
Alexey V. Kornya ⁽³⁾⁽⁴⁾	1975	Executive Director, President and Chief Executive Officer (“CEO”)
Alexander E. Gorbunov ⁽³⁾	1967	Vice President, Strategy and Development—Member of the Management Board
Tatyana S. Chernysheva	1977	Vice President, Human Resources—Member of the Management Board
Inessa V. Galaktionova	1974	First Vice President, Telecommunications—Member of the Management Board
Ilya V. Filatov	1976	Vice President, Financial Services—Member of the Management Board
Dmitry A. Khomchenko	1976	Vice President, Information Technology—Member of the Management Board
Ruslan S. Ibragimov ⁽⁴⁾	1963	Vice President, Government Relations and PR—Member of the Management Board
Andrey M. Kamenskiy	1972	Vice President, Finance—Member of the Management Board and Chief Financial Officer (“CFO”)
Vyacheslav K. Nikolaev	1970	First Vice President, Customer Experience, Marketing and Ecosystem Development—Member of the Management Board
Igor N. Mishin	1962	Vice President, Media—Member of the Management Board
Dmitry A. Khalin	1971	Vice President, Cloud and Digital Solutions—Member of the Management Board

- (1) Member of the Remuneration and Nomination Committee.
- (2) Member of the Audit Committee.
- (3) Member of the Strategy Committee.
- (4) Member of the Corporate Governance Committee.
- (5) Member of the Special Committee.

Felix V. Evtushenkov was appointed Chairman of our Board of Directors in June 2019. He is the Deputy Chairman of the Board of Sistema, Chairman of its Ethics and Control Committee, as well as the Chairman of the Board of the Sistema Charity Fund. He is also a Member of the Board of Directors of Redline Capital Partners S.A., BF “Sistema,” OJSC “Element,” SCP International Investments, SCP GROUP HOLDINGS SA and Sistema. From 2012 he has served as First Vice President at Sistema. Prior to that from 2011 to 2012, he served as First Vice President, Head of Core Assets. In 2008, he was appointed Vice President, Head of Consumer Assets, at Sistema. From 2000 to 2006 he worked as General Director, CJSC Sistema-Gals, and from 2006 to 2008 as President OJSC Sistema-Gals. Mr. Evtushenkov began his career as an Associate of the President in Sistema-Invest CJSC and Executive Director of the Industry Department at Sistema from 1999 to 2000.

Artem I. Zassoursky serves as one of our Directors since June 2017. He also is a Member of our Strategy Committee, Corporate Governance Committee and Special Committee. Mr. Zassoursky is also a Vice President for Strategy and a Member of the Management Board of Sistema. He was a Member of the Board of Directors of Business-Real Estate, Agroholding Steppe, Stream LLC, Sitroniks, Detskiy Mir, Initel Services Private Limited, and now he is a Member of the Board of Directors of OJSC Vostok Inv., Sistema Asia Capital PTE, LTD and Chairman of the Board of Directors of Medsi. Prior to joining Sistema, he held the position of General Director of Stream LLC, in 2013 he served as a Vice President of SMM OJSC. He held various senior positions at major media companies prior to 2013.

Alexey B. Katkov serves as one of our Directors since June 2018. He is the Chairman of our Strategy Committee. He is also a Member of the Management Board of Sistema, Member of the Board of Directors of SVK Fund, Ozon Holdings Ltd., Detsky Mir, Sistema Venture Capital LLC and a number of other companies. He is a President of SVK Fund LLC and a CEO and President of Sistema Venture Capital LLC. Mr. Katkov is also the Chairman of Sitroniks Detsky Mir, PJSC MGTS and Sistema Consult Boards of Directors. In 2015, he was First Vice President and COO at SMM JSC. Previously, from 2000 to 2015, he worked at Mail.ru LLC, where he served as Vice President, Commercial Director and Director for International and Regional Development.

Regina von Flemming serves as one of our Directors since June 2015. She is also the Chairman of our Remuneration and Nomination Committee and a Member of our Audit Committee and Strategy Committee. She also is a Member of the Special Committee of our Board of Directors. Ms. Von Fleming is Member of Board of Directors of PJSC “Sovcombank” serving as the Chairman of the audit committee and a Member of the ESG committee, PJSC “Chelpipe” serving as the Chairman of the nominations and remunerations committee and as a Member of the audit committee and also serves on the Board of Directors of the Russian Standard Charitable Foundation. She is also employed as a Marketing Director at Weinstube. Previously, from 2016 to 2018, she was a Member of our Remuneration and Nomination Committee. Ms. von Flemming served as the CEO and Publisher of Axel Springer Russia from 2005 to 2015. Prior to that, she was the founder and owner of Flemming & Partner GmbH Berlin—Moscow, a consultancy providing services in the areas of crisis management, start up, interim management and restructuring, interim CEO in Russia mainly for German and Russian entities. From 2000 to 2003, she worked as Vice President of the “US Russia Investment Fund” at Delta Capital, one of the first private equity funds in Russia. Prior to joining Delta Capital, she held various management roles in German companies.

Antonios T. Antoniou serves as one of our Directors since June 2019. He serves as a Member of our Remuneration and Nomination Committee, Audit Committee, Corporate Governance Committee, Strategy Committee and Special Committee of our Board of Directors. He has been a Non-Executive Director at Polyus Gold International Ltd. since 2016. He has worked as Non-Executive Director at both Transcreditbank (2010-2011) and International Petroleum Ltd. (2011-2013). In 1993, started working at PwC Russia, where over the next decade he rose through a series of leadership roles, including as lead partner of the company's Saint Petersburg office. Mr. Antoniou has over 30 years of experience in the public and private sectors, having begun his career at PricewaterhouseCoopers (PwC) in the UK, where he worked from 1979 to 1993.

Vsevolod V. Rozanov serves as one of our Directors since June 2012. He is also the Chairman of our Corporate Governance Committee. He also is a Member of our Strategy Committee and Special Committee of our Board of Directors. Mr. Rozanov is also the Chairman of the Board of Directors of MTS Bank. Since 2013 he served as the Vice President—Head of Finance and Investments Complex in Sistema and now he serves as its Managing Partner. He was a Member of the Board of Directors of “Mikron” PJSC, Insitel, UK Segezha Group” LLC, “Landshaft” CJSC, “Leader Invest” OJSC, “Sistema Finance S.A. Currently he is also a member of the Boards of Directors in EAST-WEST UNITED BANK S.A., member of Management Board in Charity Fund Sistema, Sistema Asia Capital PTE, LTD, OJSC Sistema Vostok Inv. He also was Deputy Chairman of the Board of Directors in SSTL until 2018. Since 2014 until 2015 he was a member of “SG-Trans” CJSC and “Landshaft” CJSC Boards of Directors and the Chairman of the Board of Directors in “DIK” LLC. From 2008 until 2013 he served as the President of SSTL and from 2006 until 2008 served as our Vice President and Chief Financial Officer. In 2004 he was appointed Deputy General Director for Economics and Finance of Comstar UTS, coordinating the preparation of the company's IPO on the London Stock Exchange. From 2002 until 2004 served as Deputy General Director and Chief Financial Officer of MTU-Inform. From 1993 until 2001 held various consulting positions at the Moscow, London and Stockholm offices of Bain & Company.

Thomas Holtrop serves as one of our Directors since February 2013. He is also the Chairman of our Audit Committee, a Member of Remuneration and Nomination Committee and Corporate Governance Committee. He also is the Chairman of our Special Committee. From 2005 to 2011, Mr. Holtrop served as a member of the Supervisory Board at Gruner & Jahr (Hamburg). Prior to that, from 2001 to 2004, he served as the President of T-Online International AG. Mr. Holtrop also served as a member of the Board of Directors at Deutsche Telecom AG from 2002 to 2004. Prior to that, he served as Vice President at American Express International Inc. and was a member of the Board of Directors at Bank 24 AG and Deutsche Bank 24 AG.

Valentin B. Yumashev serves as one of our Directors since June 2019. He is also a Member of our Remuneration and Nomination Committee. He is a Member of the Board and Advisor of the Boris Yeltsin Presidential Center Fund. He also serves as Advisor to the President of the Russian Federation on a pro bono basis. In 1997-1998, he served as the head of the Russian Presidential Administration. In 1996, he worked as a media relations advisor to the Russian president. From 1987 to 1995 he served in a series of leadership roles at Ogoniok magazine, including as General Director. Mr. Yumashev began his career in 1978 as a journalist at Moskovsky Komsomolets. Mr. Yumashev holds a degree in journalism from Lomonosov Moscow State University.

Alexey V. Kornya serves as our President and CEO since March 2018. He is also a Member of our Corporate Governance Committee and Strategy Committee. He was the Chairman of the Board of Directors of Mobile TeleSystems LLC until 2019 and now he is a Member of the Board of Directors of MTS Bank and Sistema Capital. Mr. Kornya is also a Chairman of the Board of Directors of RTC and a Member of the Board of Directors of Charity Fund Sistema since 2018. He is also serves as a Member of the Advisory Board of Amdocs. Mr. Kornya is a member of the GSMA Association. He also served as our Vice President for Finance, Investments, Mergers and Acquisitions—CFO from 2016. From July 2008, he served as our Acting Vice President for Finance and Investments. From March 2007 to December 2008, Mr. Kornya served as our Chief Financial Controller. He served as our Financial Planning and Analysis Director from November 2004 to March 2007 and as CFO of our Urals Macro-region branch from July 2004 to November 2004. Mr. Kornya joined MTS in July 2004 as MTS Financial Director in the Ural Federal District. Prior to joining MTS, Mr. Kornya worked for North West Telecom and PwC Audit.

Alexander E. Gorbunov serves as our Vice President for Strategy and Development since April 2018. He is also a member of our Strategy Committee. Before that, he was a Member of our Board of Directors, and Deputy Chairman of our Board of Directors. In addition, Mr. Gorbunov serves as a Chairman of Board of Directors of SSTL and a Member of the Board of Directors of YouDo. From 2011 until 2018 he served as Vice-President managing telecom assets of Sistema. From 2010 until 2011, Mr. Gorbunov served as Executive Vice President for development of telecommunication assets at Core Assets Business Unit of Sistema and from 2011 until 2015—as Executive Vice-President. From 2006 until 2010, he served as Vice President for Strategy and Development at Comstar. Prior to that, from 2005 to 2006, Mr. Gorbunov headed Corporate Development Department at Sistema.

Inesa Galaktionova serves as First Vice President for Telecommunications in August 2019, having earlier joined us in February 2019 as our Vice President for Sales and Customer Service. Ms. Galaktionova brings to our team extensive industry experience, deep domain expertise, and a laser-sharp focus on operational rigor, having held multiple senior executive roles at leading Russian companies, including as Deputy CEO of Russian Post from 2013 to 2019 and Chief Commercial Officer of Tele2 Russia from 2009 to 2013. She began her career at Philips, where she worked from 1996 to 2009, ascending to Chief Marketing Officer of the Russia & Central Asia region. Ms. Galaktionova is a Member of the Board of Directors of MTS Bank, MGTS, RTC, MTS Armenia, Cloud Retail LLC and Cloud Retail plus LLC.

Ruslan S. Ibragimov serves as our Vice President—Government Relations and PR since August 2019. He earlier served as Vice President for Corporate & Legal Affairs from 2008-2019 and has been a member of our Management Board since 2007. Since 2015 he is also a Member of our Corporate Governance Committee. He is also a Vice President of the Russian Corporate Counsel Association (RCCA) and Senior Director of the Association of Independent Directors, Chairman of the Management Board of the National Payments Council Association, and Chairman of the Business Legal Support Committee of the Russian Managers Association. Mr. Ibragimov also serves as a Member of the Board of Directors of Vysshaya Shkola Publishers OJSC, Prosveshcheniye Publishers JSC and Doctor Ryadom LLC. From February 2007 to January 2008, Mr. Ibragimov served as our Director—Chief Legal Counsel. He joined us in June 2006 and initially served as the Director for legal matters, as well as headed our Legal Department. Prior to joining us, Mr. Ibragimov was a member of the law firm Ibragimov, Kagan and Partners from July 2002 to June 2006. From 1996 to 2002, he served as Deputy General Director and Senior Partner at RSM Top-Audit, a tax and legal consulting firm. From 1992 to 1996, Mr. Ibragimov headed legal departments at various commercial banks.

Andrey M. Kamenskiy serves as our Vice President—Chief Financial Officer since April 2018. He is also a Member of the Board of Directors of Mobile TeleSystems LLC, MTS Bank, MGTS, RTC, Sistema Capital and MTS Belarus. Prior to that, he served as Executive Vice President, Finance and Economics for Sistema since 2011. From 1997 to 2011, he held senior positions in finance in Trade House Perekrestok, San InBev and ING Bank (Eurasia).

Vyacheslav K. Nikolaev serves as our First Vice President for Customer Experience, Marketing and Ecosystem Development since March 2020, prior to that he served as our Vice President for Customer Experience and Marketing since August 2019 and earlier served as our Vice President for Marketing since July 2017. He is a Member of the Board of Directors of MTS Armenia, MTS Bank, MGTS, RTC, KS, MTDZK and Kinopolis. Mr. Nikolaev has been working for MTS since October 2004 and held various positions within the Group. Prior to joining MTS, he held various key positions in OOO Renaissance Capital—Financial Consultant and TRUST Investment Bank, OJSC.

Dmitry A. Khalin serves as our Vice President for Cloud and Digital Solutions since January 2020. In addition, he serves as an expert consultant on AI matters for the Russian Independent Directors Association. From 2007 through December 2019 he held a series of senior executive roles at Microsoft Russia, most recently from 2013 to 2019 as Chief Technology Officer (CTO) and General Manager of the Microsoft Russia Development Center, as well as leading the company's regional AI strategy. From 2009 to 2013 he headed Microsoft's SME and corporate sales efforts in Russia, and from 2007 to 2009 he served as Strategic Technologies Director. From 2006 to 2007 he worked as Marketing Director at Xerox Russia, having come from Microsoft where he worked as Enterprise Partner Group Manager from 1999 to 2006. Prior to that he held roles in sales and customer support at DEC and Siemens, after beginning his career in 1994 as a programmer at Russia's Electronic Computing Research Center. In addition, he serves as an expert consultant on AI matters for the Russian Independent Directors Association.

Tatyana S. Chernysheva serves as our Vice President for Human Resources since November 2019. Previously she headed the leadership development practice at the Moscow office of Spencer Stuart International. In 2016-2017, she launched multiple independent projects in HR consulting. In 2016, she worked at LSR Group as Deputy CEO for Human Resources and Organizational Development. From 2004 to 2016, she held a series of HR Director roles at local offices of leading global companies, including Lamoda Group, Alliance Healthcare, Danone Group, and Johnson&Johnson.

Ilya V. Filatov serves as our Vice President for Financial Services since August 2019. He also serves as CEO of MTS Bank. He is also a Member of the Board of Directors of RTC, East-West United Bank S.A. (EWUB), Sistema Capital, Cloud Retail LLC and Cloud Retail Plus LLC. Mr. Filatov joined MTS Bank in 2014 as First Deputy Chairman of the Management Board and was appointed the bank's chief executive in 2015. He earlier held a series of leadership positions at UralSib Bank from 2005 to 2014, including Deputy Chairman of the Management Board.

Dmitry A. Khomchenko serves as our Vice President for Information Technology since August 2019. He also is the Chairman of Board of directors STS JSC and the Chairman of the Supervisory Board of NVision Chech Republic. He has served as our Director of Information Technology since 2014. From 2015 to 2019 he concurrently worked as CEO of Sitronics Telecom Solutions (currently MTS IT), and since 2015 he has also been a member of the supervisory board of Nvision Czech Republic.

Igor N. Mishin serves as our Vice President for Media since September 2019, He is also a Vice President of the Russian Academy of Television, Member of the European Film Academy, Science & Technology Laureate of the Russian Federation, and Chairman of the Board of Trustees of the Outdoor Film Festival, the world's largest open-sky movie watching event. From 2014 to 2016 he served as General Director of TNT, one of Russia's most-watched TV networks. Prior to that he worked as a President of A-One Concept Media, Inc., General Producer for TV Service CJSC (Muz-TV music channel) and General Director of Amedia.

All members of our Board of Directors were elected at the annual shareholders' meeting on June 27, 2019 and will serve until their terms expire at the next annual shareholders' meeting, which will take place in June 2020. The business address of each of our directors is 4 Marksistkaya Street, Moscow 109147, Russian Federation.

B. Compensation of Directors and Senior Management

We accrued compensation to our Directors and Senior Management during 2019 for services in all capacities provided to us in an aggregate amount of approximately RUB 1,574 million, this amount comprised RUB 917 million in base salaries and RUB 657 million in bonuses paid pursuant to a bonus plan and in other monetary compensations for the management and directors. Bonuses are awarded annually based on our financial performance.

Our management and directors are also entitled to cash-settled and equity-settled share-based payments. Related compensation accrued in 2019 amounted to RUB 798 million.

Members of the Board of Directors who are independent non-executive directors receive annual base compensation of \$300,000 (RUB 19,421 million) or \$400,000 (RUB 25,894 million) in the case of an independent non-executive director who serves as Chairman of the Board of Directors.

Independent non-executive directors who also serve on Board committees receive additional compensation as follows. Members of the Strategy Committee, Remuneration and Nomination Committee, Audit Committee and Corporate Governance receive additional annual compensation of \$30,000 (RUB 1,942 million), and a director serving as Chairman of the foregoing committees receives additional annual compensation of \$50,000 (RUB 3,237 million). Members of special committees of the Board of Directors, which are committees established for undertaking preliminary consideration and making recommendations to the full Board in relation to certain assigned matters, receive additional annual compensation of \$30,000 (RUB 1,942 million), and a director serving as Chairman of a special committee receives additional annual compensation of \$50,000 (RUB 3,237 million). Members of all other Board committees receive additional annual compensation of \$25,000 (RUB 1,618 million) and a director serving as Chairman of any other Board committee receives additional annual compensation of \$30,000 (RUB 1,942 million).

Independent non-executive members of the Board of Directors are also eligible for remuneration in the form of shares. The number of shares to be transferred to each non-employee Director based on the results of the corporate year shall be determined as the quotient obtained by:

- the ruble equivalent of \$100,000 (RUB 6,474million) calculated according to the exchange rate established by the CBR for the date of the annual meeting of shareholders by the end of the corporate year divided by the share price in rubles being the weighted average price of the share for the last 30 calendar days preceding the annual meeting of shareholders, during which the trading was held on the Moscow Exchange.

The aggregate amount of compensation received by an independent non-executive director (including annual base compensation and remuneration for performance of additional duties for serving as a Board committee member should not exceed \$400,000 (RUB 25,498 million) and for serving as Chairman of the Board of Directors should not exceed \$500,000 (RUB 32,368 million). In the event of early termination of a director, such director receives a pro rata share of the base, committee and bonus compensation based on the amount of time the director served on our Board.

We provide all of our directors with professional liability insurance and reimburse them for all documented expenses incurred in connection with their attendance at Board meetings and other expenses.

C. Board Practices

Board of Directors

Members of our Board of Directors are elected by a majority vote of shareholders at the annual shareholders' meeting using a cumulative voting system. Directors are typically elected by the annual meeting of shareholders for one year until the next annual meeting of shareholders and may be re-elected an unlimited number of times. The Joint Stock Companies Law requires that companies with more than 10,000 holders of voting shares have a board of directors consisting of not less than nine members. Our Board of Directors currently consists of nine members. The Board of Directors has the authority to make overall management decisions for us, except those matters reserved to the shareholders. Planned meetings of the Board of Directors shall be held periodically when needed, but at least 2 (two) times a quarter. See “—B. Compensation of Directors and Senior Management” for a description of the compensations for the members of our Board of Directors.

Audit Committee

Our Audit Committee consists of three members appointed by the Board of Directors. The current members are Thomas Holtrop, Regina von Flemming and Antoniou Antonios Theodosiou, all of whom are independent members of the Board of Directors. Mr. Thomas Holtrop serves as the Chairman of the Audit Committee. The Audit Committee is primarily responsible for the integrity of our financial statements; overseeing our internal control system; overseeing our accounting and financial reporting processes and the internal and external audits of our financial statements; recommending the appointment and compensation of the independent auditors to the Board of Directors; overseeing the performance of the auditors; reviewing issues raised by the auditors, management and/or Board of Directors and, as required, making recommendations to the Board of Directors; resolving matters arising during the course of audits; and since February 25, 2015 exercises functions related to ethics matters.

According to the bylaws, the Audit Committee shall convene with our external auditors at least four times a year, but may convene more frequently if the Audit Committee chooses to do so.

Remuneration and Nomination Committee

Our Remuneration and Nomination Committee consists of four members appointed by the Board of Directors. The current members are Antoniou Antonios Theodosiou, Thomas Holtrop, Valentin Yumashev, and Regina von Flemming, who serves as the Chairman of the Remuneration and Nomination Committee. The Remuneration and Nomination Committee is primarily responsible for developing a remuneration structure and compensation levels for management executives.

According to the bylaws, the Remuneration and Nomination Committee shall be convened by the Chairman of the Remuneration and Nomination Committee, at his sole discretion, or at the suggestion of any member of this committee, a member of the Board of Directors or our President.

President

Our President is elected by the Board of Directors for a term of three years and can be reelected for an unlimited number of terms. The rights, obligations and the times and amounts of payment for the President's services are determined by a contract between him and us, as represented by our Chairman or by a person authorized by our Board of Directors. The President is responsible for day to day management of our activities, except for matters reserved to our shareholders or the Board of Directors and the Management Board. The President reports to the shareholders' meeting and to the Board of Directors and is responsible for carrying out decisions made by the shareholders and by the Board of Directors and the Management Board. On March 1, 2018, the Board of Directors has elected Alexey Kornya as our President and CEO for three years effective March 13, 2018.

Management Board

In October 2006, we revised our charter to establish a new governing body called the Management Board. The Management Board is an executive body, which oversees certain aspects of our ongoing activities. The overall number of the Management Board members is approved by the Board of Directors at the proposal of the President with each member being elected by the Board upon nomination by the President. Each Board member is elected for a three-year period and can be reelected an unlimited number of times.

The President is the Chairman of the Management Board. Currently our Management Board consists of 11 members.

Disclosure Committee

In April 2007, we established an advisory body called the Disclosure Committee. The Disclosure Committee supervises our compliance with disclosure standards in connection with all public information regarding us. These disclosure standards are based on principles of timeliness, accuracy and completeness. Members of the Disclosure Committee may be nominated by various divisions of MTS, willing to have representatives in the Disclosure Committee. Members are appointed by the President. Andrey M. Kamensky, our CFO is the Chairman of the Disclosure Committee. Currently, our Disclosure Committee consists of eight members, two of whom are officers of the company.

Auditing Commission

Our Auditing Commission supervises our financial and operational activities. Members of the Auditing Commission are nominated and elected by our shareholders at annual meetings of shareholders. A director may not simultaneously be a member of the Auditing Commission. As of the date of this document, our Auditing Commission has three members:

- Irina R. Borisenkova, who holds the position of Chief Accountant—Managing Director, Finance and Investment Complex, Sistema;
- Maxim A. Mamonov, who holds the position of Director for internal control and audit of MTS; and
- Andrey Poroh, who holds the position of the Vice-president for internal control and audit of Sistema JSFC.

The members of our Auditing Commission serve until their terms expire at the next annual shareholders' meeting, which will take place in June, 2020.

Audit Committee Financial Expert

Our Board of Directors has determined that Thomas Holtrop is an “audit committee financial expert” as defined in Item 16A of Form 20 F. Mr. Holtrop is “independent” as defined in Rule 10A 3 under the Exchange Act and current New York Stock Exchange listing rules applicable to us. For a description of Mr. Holtrop’s experience, please see “Item 6. Directors, Senior Management and Employees—A. Directors and Senior Management—Key Biographies.”

Code of Ethics

The current version of our Code of Ethics was adopted on October 19, 2018. Our Code of Ethics applies to all of our officers, directors and employees. The new Code of Ethics did not substantively alter any of its requirements as compared with the code of ethics that was in effect prior to the approval of the new Code of Ethics.

A copy of our Code of Ethics is available on our website at <http://ir.mts.ru/>.

Corporate Governance

We are required under the New York Stock Exchange listing rules to disclose any significant differences between the corporate governance practices that we follow under Russian law and applicable listing standards and those followed by U.S. domestic companies under New York Stock Exchange listing standards. This disclosure is posted on our website (<http://ir.mts.ru/about-mts/corporate-governance/default.aspx>). See also “Item 16G. Corporate Governance.”

D. Employees

At December 31, 2019, we had 62,885 employees. Of our 60,972 employees in Russia, we estimate that 616 were executives; 14,123 were technical and maintenance employees; 31,263 were sales, marketing and customer service staff; and 14,970 were administration and finance staff. In addition, of the 60,972 employees in Russia, we estimate that 19,017 were employed in our retail unit.

As of December 31, 2019, 149 of our employees worked in Ukraine (in subsidiaries other than disposed in December 2019). Of these employees, we estimate that 6 were executives; 92 were technical and maintenance employees; 13 were sales, marketing and customer service staff; and 38 were administration and finance staff.

As of December 31, 2019, 86 of our employees worked in Turkmenistan. Of these employees, we estimate that 8 were executives; 32 were technical and maintenance employees; 3 were sales, marketing and customer service staff; and 43 were administration and finance staff.

As of December 31, 2019, 1,189 of our employees worked in Armenia. Of these employees, we estimate that 9 were executives; 132 were technical and maintenance employees; 737 were sales, marketing and customer service staff; and 311 were administration and finance staff.

As of December 31, 2019, 489 of our employees worked in other countries, such as Czech Republic and Belarus (employees of NVision Group subsidiaries). Of these employees, we estimate that 18 were executives; 410 were technical and maintenance employees; 13 were sales, marketing and customer service staff; and 48 were administration and finance staff.

The following chart sets forth the number of our employees at December 31, 2019 and 2018:

	Years ended	
	December 31, 2019	December 31, 2018
Russia	60,972	60,071
Ukraine	149	3,537*
Turkmenistan	86	125
Armenia	1,189	1,140
Other	489	501
Total	<u>62,885</u>	<u>65,374</u>

* Including employees of VF Ukraine.

Our employees are not unionized, except for 1,600 employees of MGTS, who are members of trade unions. We have not experienced any work stoppages and we consider our relations with employees to be strong.

E. Share Ownership

As of April 17, 2020, we believe, that our directors, senior management and employees owned less than 1% of our outstanding common stock.

The following table sets forth information with respect to the beneficial ownership of our common stock as of April 17, 2020, by our current directors and executive officers. All shares of common stock have the same voting rights.

<u>Directors and Executive officers</u>	Beneficial ownership as of April 17, 2020	
	Number	%(1)
Ilya V. Filatov, Vice President, Financial Services—Member of the Management Board	3,051,022	0.17219%
Alexey V. Kornya, Executive Director, President and CEO	447,679	0.02526%
Ruslan S. Ibragimov, Vice President—Government Relations and PR	306,279	0.01728%
Dmitry A. Khomchenko, Vice President, Information Technology—Member of the Management Board	123,036	0.00694%
Vsevolod V Rozanov, Non-Executive Director	72,792	0.00411%
Vyacheslav K. Nikolaev, First Vice President, Customer Experience, Marketing and Ecosystem Development—Member of the Management Board	30,805	0.00174%
Regina von Flemming, Non Executive Independent Director	20,305	0.00115%
Thomas Holtrop, Non Executive Independent Director	16,338	0.00092%
Total	<u>4,068,256</u>	<u>0.22959%</u>

(1) Percentage of beneficial ownership of each named director and executive officer is based on 1,771,935,950 ordinary shares outstanding as of April 17, 2020.

Our management are entitled to remuneration in the form of options granted to them for MTS ordinary shares, which will expire in a weighted average term of approximately 3 years. The transfer of such shares is probable and is subject to certain employment conditions. In 2019, options related compensation accrued in the amount of RUB 798 million.

The following table sets forth information with respect to our ordinary shares in the form of share options granted to our current directors and executive officers as of April 17, 2020. All shares of common stock have the same voting rights.

<u>Directors and Executive officers</u>	Number of ordinary shares as of April 17, 2020	
	<u>Number</u>	<u>%⁽¹⁾</u>
Ilya V. Filatov, Vice President, Financial Services—Member of the Management Board	700,894	0.3956%
Alexey V. Kornya, Executive Director, President and CEO	520,124	0.02935%
Vyatcheslav K. Nikolaev, Vice President—First Vice President—Customer Experience, Marketing and Ecosystem Development	205,400	0.01159%
Ruslan S. Ibragimov, Vice President—Government Relations and PR	201,650	0.01138%
Alexander E. Gorbunov, Vice President—Strategy and Development	199,995	0.01129%
Andrey M. Kamenskiy, Acting Vice-President—Chief Financial Officer	197,654	0.01115%
Inesa Galaktionova, Vice President—Sales and Customer Service	181,707	0.01025%
Dmitry A. Khomchenko, Vice President, Information Technology—Member of the Management Board	139,960	0.00790%
Igor N. Mishin, Vice President, Media—Member of the Management Board	110,359	0.00623%
Tatyana S. Chernysheva, Vice President, Human Resources—Member of the Management Board	56,183	0.00317%
Dmitry A. Khalin, Vice President, Cloud and Digital Solutions—Member of the Management Board	53,741	0.00303%
Total	<u>2,567,667</u>	<u>0.14491%</u>

(1) Percentage of ordinary shares in the form of share options granted to each named director and executive officer is based on 1,771,935,950 ordinary shares outstanding as of April 17, 2020.

Item 7. Major Shareholders and Related Party Transactions

A. Major Shareholders

The following table sets forth, as of April 17, 2020, certain information regarding the beneficial ownership of our outstanding common stock. All shares of common stock have the same voting rights.

<u>Name</u>	Beneficial ownership as of April 17, 2020	
	<u>Number</u>	<u>Percentage</u>
Sistema ⁽¹⁾	634,674,257	35.82%
Sistema Finance S.A.	31,432,984	1.77%
STA ⁽²⁾	220,467,234	12.44%
ADS holders ⁽³⁾	630,963,214	35.61%
Other Public Float (including our directors and executive officers) ⁽⁴⁾	254,398,261	14.36%
Total⁽⁵⁾	<u>1,771,935,950</u>	<u>100.0%</u>

- (1) Vladimir P. Evtushenkov has a controlling interest in Sistema, and is considered under U.S. securities laws as the beneficial owner of our shares held by Sistema, Sistema Finance SA, and Sistema Telecom Activy (“STA”). Mr. Evtushenkov is also the chairman of the board of directors of Sistema.
- (2) STA is a limited liability company formed under the laws of Russia. Sistema owns 100% of STA, which became a holder of our 12.44% beneficial ownership after VAST LLC and Invest-Svyaz CJSC, the previous beneficial owners of this ownership interest, were merged into STA in 2010 and 2011, respectively.

- (3) As of April 1, 2020, the total number of ADSs outstanding was 315,481,607, representing underlying ownership of 630,963,214 shares, or approximately 35.61% of our outstanding common stock. The shares underlying the ADSs are deposited with JPMorgan Chase Bank, formerly known as Morgan Guaranty Trust Company of New York and the local custodian is Sberbank of Russia.
- (4) We believe that our directors and executive officers as a group own less than 1% of our shares.
- (5) Excludes treasury shares, as described below.

Our subsidiaries, MGTS and Bastion, owned 7,569,230 and 114,692,734 of our ordinary shares, respectively, as of April 17, 2020.

As a result of series of buy-backs during 2018, 2017 and 2016 Stream Digital LLC owned 104,165,997 of our shares as of 17 April, 2020.

As of April 17, 2020, we held a total of 226,445,625 shares, 85,662,260 of which were held in the form of ADSs. These shares are excluded from the total number of shares presented in the table above.

Sistema's current effective ownership in us is 50.03%.

B. Related Party Transactions

Transactions with Sistema and its Affiliates

Sistema

In November 2009, the Group accepted a promissory note, issued by Sistema, as repayment of the loan principal and interest accrued to that date under an agreement with Sistema-Hals. The note was interest free and was repaid in fourth quarter of 2018.

Business Nedvizhimost

In February 2015, and further in May 2015, the Group sold its 100% stake in Rent Nedvizhimost to Business Nedvizhimost, a subsidiary of Sistema, for RUB 8,500 million in total. As of December 31, 2018 and 2019 the balance of accounts receivable amounted to RUB 2,561 million and RUB 2,916 million, respectively. The amount as of December 31, 2019 is due before December 31, 2021 and bears interest of CBR Key rate + 1.5% per annum.

In December 2018, the Group sold its 40.26% stake in a mutual investment fund "Sistema-Rentnaya Nedvizhimost" to Business Nedvizhimost for RUB 450 million. At the reporting date the Group accounted for its share in the joint venture in the amount of RUB 658 million.

In March 2019, in order to optimize the processes of real estate management, the Group sold a number of buildings with a carrying value of RUB 1,479 million to Business Nedvizhimost for the consideration of RUB 7,247 million (including VAT). The consideration will be paid by installments for 10 years at 9% per annum with the collateral in the form of disposed buildings granted to the buyer. At the same time, the Group entered into a number of agreements to lease spaces in the buildings sold for the period of up to 15 years.

As a result of this transaction in 2019, the Group recorded rights of use assets in the amount of RUB 3,123 million, lease obligation in the amount of RUB 5,197 million and recognized gain in the amount of RUB 1,745 million as a part of "Other operating income, net" in consolidated statement of profit or loss.

Objedinennye Russkie Kinostudii

In April 2019, we acquired a 100% interest in Joint Stock Company Objedinennye Russkie Kinostudii, a management company of “Kinopolis” movie studio with its own movies production complex from Business Nedvizhimost, a subsidiary of Sistema, for RUB 2,042 million.

AB Safety

During the years ended December 31, 2017, 2018 and 2019, we purchased security services from AB Safety, an affiliate of Sistema, for the amount of RUB 302 million, RUB 324 million and RUB 299 million, respectively.

Koncel

During the years ended December 31, 2017, 2018 and 2019, we received expenses (income) from the scrap metal realizations minus the costs of dismantling services with Koncel, subsidiary of Sistema, for the total amount of RUB nil, RUB (1,141) million and RUB (3,328) million, respectively.

Segezha Group

During the years ended December 31, 2017, 2018 and 2019, we recognized revenue from the providing energy resources by MTS Energy and software supply with Segezha Group, subsidiaries of Sistema, for the amount of RUB 23 million, RUB 74 million and RUB 1,790 million, respectively.

Sitronics

During the years ended December 31, 2017, 2018 and 2019, we recognized revenue from internet services and video/images translation services with Sitronics, subsidiary of Sistema, in amount of RUB 303, RUB 1,195 million and RUB 1,018 million, respectively.

TelecomCapStroi

In 2018, 2019 and 2020 we entered into series of agreements with TelecomCapStroi, a subsidiary of Sistema and a major constructor of MGTS fixed line network. The costs of facilities constructed during the years ended December 31, 2018 and 2019 were RUB 93 million and RUB 83 million, respectively. As of December 31, 2018 and 2019 the total amount of advances paid to TelecomCapStroi, was RUB 1,317 million and RUB 2,319 million, respectively. The aggregate amount of contracts concluded but not yet executed is RUB 10,490 million including VAT as of April 1, 2020.

Yahont

In October 2019, we entered into agreements with Yahont, an associate of Sistema, for the data storage systems and related services supply. The equipment purchased will support further development of our network infrastructure, including implementation of the requirements of anti-terror laws (also known as “Yarovaya-Ozerov bundle of laws”), which became effective in Russia on July 1, 2018. The aggregated amount of the framework agreements may constitute up to RUB 14,001 million including VAT. As of April 1, 2020 we have purchased equipment for RUB 1,128 million and have made an advance payment of RUB 1,353 million.

Investments in certain subsidiaries and affiliates of Sistema

As of December 31, 2017, 2018 and 2019, we held investments in the share capital of certain subsidiaries and affiliates of Sistema amounting to RUB 149 million, RUB 149 million and RUB 149 million, respectively. Our main investments are in Sistema Venture Capital (former Sistema Mass Media (SMM)), in which we hold 2.356%, and the value of such investments as of December 31, 2017, 2018 and 2019, amounted to RUB 117 million.

Transactions with equity investees

MTS Bank

On July 5, 2018, we acquired the controlling stake in MTS Bank and thus it ceased to be a related party to the Group since the acquisition date.

We maintain certain bank accounts with MTS Bank, an associate of the Group. As of December 31, 2017, the Group's cash position at MTS Bank amounted to RUB 13,746 million, including short-term deposits in the amount of RUB 633 million. The interest accrued on the deposits and cash on current accounts for the year ended December 31, 2017 and the period from January 1, 2018 till July 5, 2018, amounted to RUB 345 million and RUB 448 million, respectively, and was included as a component of the line item "interest income" in our audited consolidated financial statements. In January 2017, MTS Bank fully repaid its 10-year-subordinated loan, received from the Group in September 2012 in amount of RUB 2,100 million.

During the year ended December 31, 2017 and the period from January 1, 2018 till July 5, 2018, we received revenues from mobile and call center services with MTS Bank amounting to RUB 1,507 million and RUB 1,271 million, respectively. In addition, during the year ended December 31, 2017 and the period from January 1, 2018 till July 5, 2018 we received revenues from processing documents for bank cards issue and granting of consumer credits amounting to RUB 378 million and RUB 228 million, respectively (agency fees after deduction of cross-fines). Moreover, during the year ended December 31, 2017 and the period from January 1, 2018 till July 5, 2018 we incurred commission expenses (bank commission and commission for cash collection from subscribers) amounting to RUB 2,259 million and RUB 1,217 million, respectively.

East-West United Bank

We maintain certain bank accounts with East-West United Bank, a subsidiary of Sistema. As of December 31, 2017, December 31, 2018, and December 31, 2019 the Group's cash position at East-West United Bank amounted to RUB 5,969 million, RUB 938 million and RUB 282 million, respectively, including short-term deposits in the amount of RUB 5,810 million, RUB nil and RUB nil, respectively.

MTS Belarus

During the years ended December 31, 2017, 2018 and 2019, we recognized revenues from roaming agreements with MTS Belarus, our associate company, amounting to RUB 248 million, RUB 296 million and RUB 296 million, respectively. At the same time, during the years ended December 31, 2017, 2018 and 2019 we incurred roaming expenses with MTS Belarus amounting to RUB 121 million, RUB 104 million and RUB 87 million, respectively.

Sistema Capital

In 2016 and 2017 the Group entered into trust agreements with the asset management company Sistema Capital. As of December 31, 2018 and 2019, the balance of assets under trust management amounted to RUB 11,644 million and RUB 8,195 million respectively.

In December 2019, the Group acquired a share in mutual investment funds “Rezervny” and “Rezervny. Valyutny” for RUB 5,665 million and 3,678 million, respectively. As at December 31, 2019, these shares are carried at fair value with the revaluation recognized in consolidated statement of profit or loss, and their value is 5,682 million and 3,667 million, respectively.

Zifrovoe TV

In June 2017, we made a cash contribution to Zifrovoe TV in the amount of RUB 171 million.

Accounts receivable and accounts payable

We had total accounts receivable of RUB 11,360 million, RUB 8,930 million and RUB 16,659 million, from, and total accounts payable of RUB 1,102 million, RUB 1,301 million and RUB 558 million to, related parties as of December 31, 2017, 2018 and 2019, respectively. We had total Bank deposits and liabilities of RUB 43,686 million and RUB 41,351 million from related parties as of December 31, 2018 and 2019. We do not have the intent or ability to offset the outstanding accounts payable and/or accounts receivable with related parties under the term of existing agreements with them. See Note 30 to our audited consolidated financial statements for details of our accounts payable and accounts receivable.

C. Interests of Experts and Counsel

Not applicable.

Item 8. *Financial Information*

A. Consolidated Statements and Other Financial Information

8.A.1-3. See Item 18.

8.A.4-6. Not applicable.

8.A.7. Litigation

Uzbekistan

In June 2012, the authorities of the Republic of Uzbekistan commenced audits of the financial and operating activities of MTS’ wholly-owned subsidiary Uzdunrobota. Further various claims for violation of tax, antimonopoly and industry legislation were made against Uzdunrobota, which resulted in significant amounts of fines and penalties, revocation of all licenses and suspension of services. Fines and penalties amounted to approximately RUB 18,375 million payable in equal installments over eight months.

Uzdunrobota paid two scheduled installments in November and December 2012 totaling approximately RUB 4,583.4 million. On January 14, 2013, further to its partial payment of the third installment due in January 2013 totaling approximately RUB 481 million and constituting the remaining amount of cash held in its bank accounts, Uzdunrobota filed a petition for voluntary bankruptcy to the Tashkent Economic Court on the grounds of its inability to meet further obligations.

Considering the adverse impact of such circumstances on the Group’s ability to conduct operations in Uzbekistan, the Group tested goodwill and other long-lived assets attributable to Uzbekistan for impairment upon first receiving notification of the investigations. As a result, an impairment loss on the long-lived assets in the amount of RUB 20,037 million was recorded in the consolidated statements of profit or loss for the year ended December 31, 2012. In 2013 these losses were assigned to discontinued operations.

In 2012, the Group filed a claim against the Republic of Uzbekistan in the ICSID, part of the World Bank Group, in Washington, D.C.

On April 22, 2013, the Tashkent Economic Court declared Uzdurobita bankrupt and initiated a liquidation process. Uzdurobita was later liquidated. As a result the Group lost control over the subsidiary and deconsolidated Uzdurobita.

In July 2014, the dispute between MTS and the Republic of Uzbekistan was resolved. The parties signed the Settlement Agreement and according to its terms all mutual claims were eliminated. The Settlement Agreement is governed by English law and provides for resolution of any disputes arising out of the Settlement Agreement in the ICSID. ICSID has discontinued international arbitration proceedings between us and the Republic of Uzbekistan following the submission of a joint application by both parties.

The Republic of Uzbekistan established a legal entity, UMS, with such entity having no legal connection to the previously liquidated entity, Uzdurobita. UMS was granted 2G, 3G and LTE licenses valid until 2029, and received frequencies, numbering capacity and other permits required for the launch of operations. On September 24, 2014, a 50.01% ownership interest in UMS was transferred to MTS by the State Unitary Enterprise Center of Radio Communications, Radio Broadcasting and Television on behalf of the Republic of Uzbekistan. We have also received certain guaranties in relation to the protection of any future investment in the Republic of Uzbekistan.

In March 2014, we received requests for the provision of information from the SEC and the DOJ relating to a currently conducted investigation of the our former subsidiary in Uzbekistan.

In July 2015, activities related to our operations in Uzbekistan have been referenced in a civil forfeiture complaints (“The Complaints”), filed by DOJ in the U.S. District Court, Southern District of New York (Manhattan), directed at certain assets of an unnamed Uzbek government official. The Complaints allege among other things that we and certain other parties made corrupt payments to the unnamed Uzbek official to assist their entering and operating in the Uzbekistan telecommunications market. The Complaints are solely directed towards assets held by the unnamed Uzbek official and none of our assets are affected by the Complaints.

In March 2019, we reached a resolution with the SEC and the DOJ relating with these investigations. We consented to the entry of the Order by the SEC. The United States District Court for the Southern District of New York approved the DPA entered by us and a plea agreement entered into our former subsidiary in Uzbekistan. Under the agreements with the DOJ and SEC, we agreed to pay a total of USD 850 million (RUB 59.1 billion as of December 31, 2018) to the United States, which was comprised of a criminal fine, criminal forfeiture and civil penalty. We provided a provision of USD 850 million (RUB 55.8 billion as of the date of accrual), which was recognized as a part of discontinued operations in our audited consolidated statement of profit or loss for the year ended December 31, 2018. In March 2019, the Group paid the total penalty of USD 850 million (RUB 55.6 billion as of the payment date).

Under the DPA and the Order, we agreed to appoint and in September 2019 appointed an independent compliance monitor. Pursuant to the DPA and the Order, the monitorship will continue for a period of three years starting from the appointment date, and the term of the monitorship may be terminated early or extended depending on certain circumstances, as ultimately determined and approved by the DOJ and SEC.

In March 2019, a proposed class action complaint on behalf of Shayan Salim and all other persons similarly situated has been filed in the United States District Court for the Eastern District of New York against MTS PJSC and certain of its managers. The complaint is alleging certain securities law violations relating to the resolution of US government investigations related to our former operations in Uzbekistan. We are reviewing the allegations and intend to defend our interests. It is currently impossible to predict possible implications and amount of the claim reliably. It is possible that additional similar complaints will be filed.

For additional information please refer to Note 10 and 34 to our audited consolidated financial statements, “Item 3. Key Information—D. Risk Factors—Legal Risks and Uncertainties—The inability of our subsidiaries in the countries in which we are present to maintain control over their operations and assets may adversely affect our business, financial condition and results of operations” regarding recent suspension of our services in Uzbekistan and “—We are subject to anti-corruption laws in the jurisdictions in which we operate, including anti-corruption laws of Russia and the US Foreign Corrupt Practices Act (the “FCPA”), and we may be subject to the UK Bribery Act 2010 (the “UK Bribery Act”). Our failure to comply therewith could result in penalties which could harm our reputation and have a material adverse effect on our business, financial condition and results of operations,” “—We have incurred and are continuing to incur costs and related management oversight obligations in connection with our obligations under the DPA and the SEC Order” and “—We could be subject to criminal prosecution or civil sanction if we breach the DPA and the SEC Order, and we may face other potentially negative consequences relating to the investigations by, and agreements with, the DOJ and SEC and other authorities, including additional investigations and litigation.”

Turkmenistan

In July 2018, we filed a Request for Arbitration against the Sovereign State of Turkmenistan with the ICSID in order to protect our legal rights and investments in Turkmenistan. In April 2019, we filed a Memorial (statement of claim) in the dispute with the Sovereign State of Turkmenistan with the ICSID. The case is pending resolution. See “Item 3. Key Information—D. Risk Factors—Legal Risks and Uncertainties—An outcome of the proceedings relating to sustaining operations of our subsidiary in Turkmenistan is unpredictable.”

Tax Audits and Claims

In the ordinary course of business, we may be party to various tax proceedings, and subject to tax claims, some of which relate to the developing markets and evolving fiscal and regulatory environments in which we operate. In the opinion of management, our liability, if any, in all pending tax proceedings or tax claims will not have a material effect on our financial condition, results of operations or liquidity. We believe that we have adequately provided for tax liabilities in the accompanying consolidated financial statements; however, the risk remains that relevant authorities could take differing positions with regard to interpretive issues and the effect could be significant. See also Note 33 to our audited consolidated financial statements.

In September 2018, the Russian tax authorities initiated a tax audit of STV LLC for the years ended December 31, 2015, 2016 and 2017. In July 2019, the tax audit was completed. Based on the results of this audit, the Russian tax authorities determined that RUB 17,7 million of additional taxes, fines and penalties were payable by us. We are considering to appeal this resolution.

In December 2018, the Russian tax authorities completed a secondary tax audit of MGTS for the year ended December 31, 2014. Based on the results of this audit, the Russian tax authorities argued possibility of utilization by MGTS of tax asset in the amount of RUB 1,065.79 million. In September 2019 we filed an appeal with the Moscow Arbitrate Court.

In December 2019, the Russian tax authorities initiated a tax audit of Stream LLC for the years ended December 31, 2016, 2017 and 2018 which is on-going.

Generally, according to Russian tax legislation, tax declarations remain open and subject to inspection for a period of three years following the tax year. As of December 31, 2019, tax declarations of our Russian subsidiaries were open for audit for the preceding three fiscal years. Since 2016, we communicate with tax authorities within Tax Monitoring regime. Under this regime, we disclose information and documents related to calculation of our tax liabilities on-line; the tax year is considered closed for disputes by October of the year following the reporting tax year.

Antimonopoly Proceedings

In July 2017, the FAS issued a warning to MTS, MegaFon, Tele2 and VEON Ltd. (VimpelCom) on termination of actions containing signs of violation of the antimonopoly laws in respect of establishing unreasonable differences in tariffication of communication services for subscribers in home region and outside. Following non-compliance with the warning, the FAS started antimonopoly proceeding against us. The FAS also started antimonopoly proceeding against us for establishing high prices for communication services in national roaming. In 2018, we changed the principles and terms of tariffication when travelling about the country. The FAS held us administratively liable and imposed administrative fines in amount of RUB 1 million in respect of each proceeding.

In August 2018, the FAS charged us and other federal operators with violation of antimonopoly laws in respect to establishing distinguished terms and conditions for bulk SMS pricing for the banks with state-owned equity interest as compared to the terms and conditions for the other banks and establishing unreasonably high bulk SMS prices. In May 2019, FAS has ruled on MTS breaching the provisions of antimonopoly laws in respect to establishing discriminatory terms and conditions for bulk SMS pricing and charging unreasonably high bulk SMS prices and has prescribed MTS to cease violations. MTS contested the decision and prescription of FAS in the Moscow Arbitration Court, which upheld the position of FAS in November 2019, which was also upheld by the Arbitration Court of Appeal in March 2020. It is not possible to make a reliable estimation of the implications of this case at this stage.

8.A.8. Dividend Distribution Policy

On April 8, 2016, our Board of Directors approved dividend policy which sets a target payout of RUB 25.0 - 26.0 per ordinary MTS share (RUB 50.0 - 52.0 per ADR) per calendar year. The policy guarantees a minimum payout of RUB 20.0 per ordinary MTS share (or RUB 40.0 per ADR). The policy covered 2016 - 2018. Payments continued to be made on a semi-annual basis.

Annual and semi-annual dividend payments, if any, must be recommended by Board of Directors and approved by the General Meeting of Shareholders (GM). We anticipate that any dividends we may pay in the future on the shares represented by the ADSs will be declared and paid to the depositary in rubles and will be converted into U.S. dollars by the depositary and distributed to holders of ADSs, net of the depositary's fees and expenses. Accordingly, the value of dividends received by holders of ADSs will be subject to fluctuations in the exchange rate between the ruble and the dollar.

On March 21, 2019, our Board of Directors approved new dividend policy which sets a minimum payout of RUB 28.0 per ordinary MTS share (RUB 56.0 per ADR) per calendar year. In determining actual dividends payout, we will consider a number of factors, including cash flow from operations, capital expenditures and debt position. The policy will cover 2019 - 2021. Payments will continue to be made on a semi-annual basis.

B. Significant Changes

Ruble bonds placement—In February 2020, MTS issued exchange-traded bonds totaling RUB 15 billion with a coupon rate of 6.6% and a maturity of 7 years.

Purchase of stake in Zelenaya Tochka—In February 2020 the Group purchased 51% stakes in Achemar Holdings Limited and Clarkia Holdings Limited, owners of the operational companies of “Zelenaya Tochka” Group, fixed-line operator in multiple regions of Russia for RUB 1,370 million, with a call and put option arrangement existing over remaining 49% of shares. The purchase of 51% stake was accounted as investment in joint venture.

COVID-19—The transmission of the virus both in Russia and worldwide may affect our results of operations to the extent that depends on the effectiveness of government mitigating measures, pandemic duration and macroeconomic conditions. As the situation develops rapidly it is currently impossible to assess the impact of the virus spread on our operations. Though it may possibly affect roaming activity of our subscribers, banking and retail services and network equipment supply, see “Item 3. Key Information—D. Risk Factors—Risks Relating to our Financial Condition—Fluctuations in the global economy may materially adversely affect the economies of the countries where we operate and our business in these countries.”

Item 9. Offer and Listing Details

(Only Items 9.A.4 and 9.C are applicable.)

A. Market Price Information

Our ADS, each representing two ordinary shares, have been listed on the NYSE since July 6, 2000 under the symbol “MBT.” Our ordinary shares have been listed on MICEX (currently Moscow Exchange) since December 2003. In addition, we issued additional ordinary shares in connection with our merger with Comstar, which have been listed on MICEX (currently Moscow Exchange) since May 2011. The shares of the additional issuance became fully fungible with our previously issued ordinary shares in July 2011. Set forth below, for the periods indicated, are the high and low closing prices per ADS as reported by the NYSE and the high and low closing prices per ordinary share as reported by the Moscow Exchange.

	<u>ADS High</u>	<u>ADS Low</u>	<u>Ordinary Share High</u>	<u>Ordinary Share Low</u>
Monthly High and Low				
March 2020	\$10.19	\$ 6.20	335.00 RUB	251.00 RUB
February 2020	\$11.00	\$ 9.38	353.05 RUB	307.25 RUB
January 2020	\$10.82	\$10.09	336.45 RUB	315.40 RUB
December 2019	\$10.24	\$ 9.34	320.00 RUB	300.80 RUB
November 2019	\$ 9.68	\$ 9.13	308.50 RUB	286.30 RUB
October 2019	\$ 9.12	\$ 7.88	289.25 RUB	260.55 RUB
Quarterly High and Low				
First Quarter 2020	\$11.00	\$ 6.20	353.05 RUB	251.00 RUB
Fourth Quarter 2019	\$10.24	\$ 7.88	320.00 RUB	266.55 RUB
Third Quarter 2019	\$ 9.20	\$ 7.54	289.70 RUB	252.00 RUB
Second Quarter 2019	\$ 9.49	\$ 7.62	288.80 RUB	252.20 RUB
First Quarter 2019	\$ 8.60	\$ 7.26	272.10 RUB	237.00 RUB
Fourth Quarter 2018	\$ 8.75	\$ 6.64	279.50 RUB	222.40 RUB
Third Quarter 2018	\$ 8.82	\$ 7.25	288.00 RUB	245.25 RUB
Second Quarter 2018	\$10.67	\$ 8.32	302.25 RUB	252.00 RUB
First Quarter 2018	\$12.80	\$10.22	321.00 RUB	271.30 RUB
Annual High and Low⁽¹⁾				
2019	\$10.24	\$ 7.31	323.75 RUB	299.60 RUB
2018	\$12.80	\$ 6.64	321.00 RUB	222.40 RUB
2017	\$11.58	\$ 7.77	296.95 RUB	223.05 RUB
2016	\$ 9.64	\$ 5.22	268.30 RUB	200.55 RUB
2015	\$12.77	\$ 6.11	271.00 RUB	174.70 RUB

(1) Effective May 3, 2010, the ratio of our ADSs changed from 1 ADS per 5 common shares to 1 ADS per 2 common shares. The ADS prices set forth in the table above reflect the new share: ADS ratio for all periods.

Markets

Our common stock has been listed on the Moscow Interbank Currency Exchange (currently Moscow Exchange) since December 2003. ADSs, each representing two shares of our common stock, have been listed on the New York Stock Exchange under the symbol “MBT” since July 6, 2000. Our U.S. dollar-denominated notes due in 2020 and 2023 are listed on the Irish Stock Exchange. Our ruble-denominated notes are listed on the Moscow Exchange.

Item 10. Additional Information

A. Share Capital

Not applicable.

B. Charter and Certain Requirements of Russian Legislation

We describe below material provisions of our charter and certain requirements of Russian legislation. In addition to this description, we urge you to review our charter to learn its complete terms.

Our Purpose

Article 2.1 of our charter provides that our principal purpose is to obtain profits through the planning, marketing, establishing and operating communications network and facilities, to provide access to Internet and to render communications services on our license territories.

We are registered with the Ministry of Taxes and Duties of the Russian Federation under the state registration number 1027700149124.

General Matters

Pursuant to our charter, we have the right to issue registered common stock, preferred stock and other securities provided for by legal acts of the Russian Federation with respect to securities. Our capital stock currently consists of 1,998,381,575 common shares, each with a par value of 0.10 rubles, all of which are issued and fully paid. Under Russian legislation, charter capital refers to the aggregate par value of the issued and outstanding shares. We are also authorized to issue an additional 100,000,000 common shares with a par value of 0.10 rubles each. We have issued only common stock. No preferred shares are authorized or outstanding. Preferred stock may only be issued if corresponding amendments have been made to our charter pursuant to a resolution of the general meeting of shareholders.

The Joint Stock Companies Law requires us to dispose of any of our shares that we acquire within one year of their acquisition or, failing that, reduce our charter capital. We refer to such shares as treasury shares for the purposes hereof. Russian legislation does not allow for the voting of such treasury shares. Any of our shares that are owned by our subsidiaries are not considered treasury shares under Russian law (*i.e.*, they are considered outstanding shares), and our subsidiaries holding such shares are able to vote and dispose of such shares without any further corporate actions by our shareholders or Board of Directors.

In March 2016, in the course of liquidation of our wholly owned subsidiary, MTS Bermuda, we obtained 67,995,335 shares. As of June 1, 2016, we had 36,652 treasury shares repurchased pursuant to our shareholders' right to demand buy-out following the merger of our subsidiaries into MTS during 2015 and 2016 in accordance with applicable laws. In June 2016, our shareholders decided to decrease our charter capital by cancellation of all outstanding 68,031,987 treasury shares (approximately 3.29% of our share capital at that time). In August 2016, we cancelled these shares, and as such our capital stock decreased from 2,066,413,562 to 1,998,381,575 shares. As of April 1, 2017, we did not have any treasury shares.

In August, 2017, we repurchased 497 treasury shares pursuant to our shareholders' right to demand buy-out following the merger of our subsidiaries into MTS in accordance with applicable laws. As of December 31, 2017, we had 497 treasury shares.

In September 2018, we repurchased 17,167 treasury shares in the course of buy-back procedure under article 75 of the Federal law "On Joint-Stock Companies." As of December 31, 2018, MTS held 17,664 treasury shares. As of December 31, 2019 the number of treasury shares in MTS possession remains the same.

As of April 1, 2016, our subsidiaries held 9,496,163 of our shares. In April 2016, our wholly owned subsidiary Bastion LLC sold 954,386 shares to our management pursuant to our management long-term motivation program. In December 2016, our wholly owned subsidiary Stream Digital LLC purchased 3,060,409 shares (including shares represented by ADSs) as a result of a tender offer announced in October 2016.

A second tender offer was announced in January 2017, as a result of which Stream Digital LLC purchased additional 32,061,256 shares. Thus, as of April 1, 2017, our subsidiaries held a total of 43,543,303 of our shares.

To increase the shareholder return, we continued repurchase of the shares in the open market in 2017, 2018, 2019 and 2020. Thus, as of December 31, 2017, our subsidiaries held a total of 86,339,156 of our shares. As of December 31, 2018 our subsidiaries held a total of 167,621,235 of MTS shares. As of December 31, 2019, our subsidiaries held a total of 225,529,758 of MTS shares.

See “Item 7. Major Shareholders and Related Party Transactions—A. Major Shareholders.” In our consolidated financial statements prepared in accordance with IFRS, these shares are considered treasury shares (*i.e.*, they are considered not outstanding).

As of the date of this document, we had more than ten thousand shareholders for purposes of the Joint Stock Companies Law.

Rights Attaching to Shares

Holders of our common stock have the right to vote at all shareholders’ meetings. As required by the Joint Stock Companies Law and our charter, all shares of our common stock have the same par value and grant identical rights to their holders. Each fully paid share of common stock, except for treasury shares, gives its holder the right to:

- freely transfer the shares without our consent and the consent of other shareholders;
- receive dividends;
- participate in shareholders’ meetings and vote on all matters within shareholders’ competence;
- transfer voting rights to a representative on the basis of a power of attorney;
- participate in the election and dismissal of members of the Board of Directors and Auditing Commission;
- exercise its pre-emptive right in certain circumstances, as determined by the Joint Stock Companies Law;
- if holding, alone or with other holders, 1% or more of the outstanding common shares, file a lawsuit against a member of the Board of Directors or member of any executive body of the company (including the company’s CEO and/or the company’s managing organization) to reimburse damages suffered by the company as the result of their fault;
- if holding, alone or with other holders, more than 1% of the voting shares, demand from the holder of register of shareholders to provide information on shareholders of the company and shares held by such shareholders;
- if holding, alone or with other holders, 2% or more of the voting stock, within 100 days after the end of our fiscal year, make proposals for the agenda of the annual shareholders’ meeting and nominate candidates to the Board of Directors, the Counting Commission and the Auditing Commission;

- if holding, alone or with other holders, 10% or more of the voting stock, demand from the Board of Directors the calling of an extraordinary shareholders' meeting or an unscheduled audit by the Auditing Commission or an independent auditor, and file a lawsuit against the company to convene an extraordinary shareholders' meeting if the Board of Directors fails to take a decision to convene an extraordinary shareholders' meeting or decides against convening such meeting;
- demand, under the following circumstances, the repurchase by us of all or some of the shares owned by it, as long as such holder voted against or did not participate in the voting on the decision approving the following:
 - any reorganization;
 - the conclusion of a major transaction, the value of which exceeds 50% of the balance sheet value of the assets calculated under Russian Accounting Standards ("RAS");
 - any amendment of our charter or approval of a restated version of our charter in a manner that restricts the holder's rights;
 - delisting of our shares from a stock exchange; 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 equity securities convertible into shares (i.e., transformation to a non-public company);
- upon liquidation, receive a proportionate amount of our property after our obligations are fulfilled;
- have free access to certain company documents, receive copies for a reasonable fee and, if holding alone or with other holders, 25% or more of the voting stock, have access to accounting documents and minutes of the management board meetings;
- if holding, alone or with other shareholders at least 1% of the voting shares, demand consent for an interested party transaction; and
- exercise other rights of a shareholder provided by our charter, Russian legislation and decisions of shareholders' meeting approved in accordance with its competence.

Pre-emptive Rights

The Joint Stock Companies Law and our charter provide existing shareholders with a pre-emptive right to purchase shares or securities convertible into shares during an open subscription in the amount proportionate to their existing shareholdings. In addition, the Joint Stock Companies Law provides shareholders with a pre-emptive right to purchase shares or securities convertible into shares, in an amount proportionate to their existing shareholdings, during a private subscription if the shareholders voted against or did not participate in the voting on the decision approving such subscription. The pre-emptive right does not apply to a private subscription to the existing shareholders provided that such shareholders may each acquire a whole number of shares or securities convertible into shares being placed in an amount proportionate to their existing shareholdings. We must provide shareholders with written notice of their pre-emptive right to purchase shares and the period during which shareholders can exercise their pre-emptive rights may not be less than 45 or, under certain circumstances, 20 or even eight business days. We cannot sell the shares or securities convertible into shares which are subject to the pre-emptive rights during this period.

Dividends

The Joint Stock Companies Law and our charter set forth the procedure for determining the quarterly and annual dividends that we may distribute to our shareholders. We may declare dividends based on our first quarter, six month, nine month or annual results. Dividends are recommended to a shareholders' meeting by a majority vote of the Board of Directors and approved by the shareholders by a majority vote. A decision on quarterly, six month and nine month dividends must be taken within three months of the end of the respective quarter at the extraordinary shareholders' meeting; and a decision on annual dividends must be taken at the annual general shareholders' meeting. The dividend approved at the shareholders' meeting may not be more than the amount recommended by the Board of Directors.

The Joint Stock Companies Law allows dividends to be declared only out of net profits calculated under RAS as long as the following conditions have been met:

- the charter capital of the company has been paid in full;
- the value of the company's net assets on the date of the adoption of the decision to pay dividends is not less (and would not become less as a result of the proposed dividend payment) than the sum of the company's charter capital, the company's reserve fund and the difference between the liquidation value and the par value of the issued and outstanding preferred stock of the company;
- the company has repurchased all shares from shareholders having the right to demand repurchase; and
- the company is not, and would not become, insolvent as the result of the proposed dividend payment.

The Joint Stock Companies Law and the Securities Market Law have been amended on December 29, 2012 to adopt new dividend payment rules that came into force January 1, 2014. These amendments include new rules on determining the shareholders entitled to dividend distribution whereby the list of such shareholders is fixed at date determined in the decision of the General shareholders' meeting on the distribution of dividends. The date shall be not earlier than 10 days and not later than 20 days following the date of such decision. The dividends are to be paid to private shareholders registered in the share register of the company within 25 business days and to nominal holders and professional managers within 10 business days from the date on which persons entitled to receive dividends are determined. If shares are held on a depo account with a depository, dividends will be transferred to such shareholders by such depository within seven business days of receipt of funds by the depository.

Distributions to Shareholders on Liquidation

Under Russian legislation, liquidation of a company results in its termination without the transfer of rights and obligations to other persons as legal successors. The Joint Stock Companies Law and our charter allow us to be liquidated:

- by a three-quarters majority vote of a shareholders' meeting; or
- by a court order.

Following a decision to liquidate us, the right to manage our affairs would pass to a liquidation commission appointed by a shareholders' meeting. In the event of an involuntary liquidation, the court may assign the duty to liquidate the company to its shareholders. Creditors may file claims within a period to be determined by the liquidation commission, but such period must not be less than two months from the date of publication of notice of liquidation by the liquidation commission.

The Civil Code of the Russian Federation gives creditors the following order of priority during liquidation:

- individuals owed compensation for injuries or deaths;
- employees and authors of intellectual property;
- federal and local governmental entities claiming taxes and similar payments to the federal and local budgets and to non-budgetary funds; and
- other creditors in accordance with Russian legislation.

Claims of creditors in obligations secured by a pledge of the company's property ("secured claims") are satisfied out of the proceeds of sale of the pledged property prior to claims of any other creditors except for the creditors of the first and second priorities described above, provided that claims of such creditors arose before the pledge agreements in respect of the company's property were made. To the extent that the proceeds of sale of the pledged property are not sufficient to satisfy secured claims, the latter are satisfied simultaneously with claims of the fourth priority creditors as described above.

The Federal Law on Insolvency (Bankruptcy), however, provides for a different order of priority for creditors' claims in the event of bankruptcy.

The remaining assets of a company are distributed among shareholders in the following order of priority:

- payments to repurchase shares from shareholders having the right to demand repurchase;
- payments of declared but unpaid dividends on preferred shares and the liquidation value of the preferred shares determined by the company's charter, if any; and
- payments to holders of common and preferred shares.

Liability of Shareholders

The Civil Code of the Russian Federation and the Joint Stock Companies Law generally provide that shareholders in a Russian joint stock company are not liable for the obligations of a joint stock company and bear only the risk of loss of their investments. This may not be the case, however, when one company is capable of determining decisions made by another company. The company capable of determining such decisions is called an "effective parent." The company whose decisions are capable of being so determined is called an "effective subsidiary." The 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 persons; and
- the effective parent gives binding instructions or consent for a transaction to the effective subsidiary (except for voting of the effective parent in a shareholders' meeting of its effective subsidiary and approval by the effective parent's governing body of a transaction if such approval is required under the charter of the effective parent or the effective subsidiary).

In addition, an effective parent is secondarily liable for an effective subsidiary's debts if an effective subsidiary becomes insolvent or bankrupt resulting from the act or omission of an effective parent only when the effective parent has used the right to give binding instructions, knowing that the consequence of carrying out this act or omission would be insolvency of this effective subsidiary. This is the case no matter how the effective parent's capability to determine decisions of the effective subsidiary arises, such as through ownership of voting securities or by contract. In these instances, other shareholders of the effective subsidiary may claim compensation for the effective subsidiary's losses from the effective parent that caused the effective subsidiary to take any action or fail to take any action knowing that such action or failure to take action would result in losses.

Alteration of Capital

Charter Capital Increase

We may increase our charter capital by:

- issuing new shares; or
- increasing the par value of previously issued shares.

A decision on any issuance of shares or securities convertible into shares by private subscription, or an issuance by open subscription of common shares or securities convertible into common shares constituting 25% or more of the number of issued common shares, requires a three-quarters majority vote of a shareholders' meeting. Otherwise, a decision to increase the charter capital by increasing the par value of issued shares requires a majority vote of a shareholders' meeting. In certain circumstances provided in our charter, a decision to increase the charter capital may be taken by our Board of Directors. In addition, the issuance of shares above the number provided in our charter necessitates a charter amendment, which requires a three-quarters affirmative vote of a shareholders' meeting.

The Joint Stock Companies Law requires that the value of newly issued shares be determined by the board of directors based on their market value but not less than their par value. The price of newly issued shares for existing shareholders exercising their pre-emptive right to purchase shares could be less than the price paid by third parties, but not less than 90% of the price paid by third parties. Fees paid to intermediaries may not exceed 10% of the shares placement price. The board of directors shall value any in-kind contributions for new shares, based on the appraisal report of an appraiser.

Russian securities regulations set out detailed procedures for the issuance and registration of shares of a joint stock company. These procedures require:

- taking a decision on a share placement;
- approval of a resolution on a share issuance;
- prior registration of the share issuance with the CBR;
- placement of shares;
- filing with the CBR and registration of a report or a notice (as applicable) on results of the share issuance; and
- public disclosure of information relating to the issuance of shares.

Charter Capital Decrease; Share Buy-Backs

The Joint Stock Companies Law does not allow a company to reduce its charter capital below the minimum charter capital required by law, which is 100,000 rubles for a public joint stock company. The Joint Stock Companies Law and our charter require that any decision to reduce our charter capital through the repurchase and cancellation of shares, be made by a majority vote of a shareholders' meeting and through reduction of the par value of shares, by a three-quarter majority vote of a shareholders' meeting. Additionally, within three business days of a decision to reduce our charter capital, we must notify the federal executive body in charge of the state registration of legal entities on the decision taken and publish within the same three-day period a notice regarding the charter capital reduction, as well as a second notice one month after the first notice is published. Our creditors, whose claims arose before the decision on the charter capital decrease was taken, would then have the right to demand, not later than 30 days of the second publication of the notice, early termination or settlement of relevant obligations by us, as well as compensation for damages.

The Joint Stock Companies Law and our charter allow our shareholders or the Board of Directors to authorize the repurchase of up to 10% of our shares in exchange for cash. The repurchased shares pursuant to a board decision must be resold at the market price within one year of their repurchase or, failing that, the shareholders must decide to cancel such shares and decrease the charter capital. Repurchased shares do not bear voting rights.

Shares repurchased pursuant to a decision of our shareholders' meeting to decrease the overall number of shares are cancelled at their redemption.

The Joint Stock Companies Law allows us to repurchase our shares only if, at the time of repurchase:

- our charter capital is paid in full;
- we are not and would not become, as a result of the repurchase, insolvent;
- the value of our net assets at the time of repurchase of our shares is not less (and would not become less, as a result of the proposed repurchase) than the sum of our charter capital, the reserve fund and the difference between the liquidation value and par value of our issued and outstanding preferred shares; and
- we have repurchased all shares from shareholders having the right to demand repurchase of their shares in accordance with Russian law, as described immediately below.

Our subsidiaries are not restricted from purchasing our shares, and our subsidiaries can vote these shares.

The Joint Stock Companies Law and our charter provide that our shareholders may demand repurchase of all or some of their shares as long as the shareholder demanding repurchase voted against or did not participate in the voting on the decision approving any of the following actions:

- any reorganization;
- the conclusion of a major transaction, which involves assets having value of more than 50% of the balance sheet value of the assets calculated under RAS (including those which are simultaneously interested party transactions); or
- any amendment of our charter or approval of a restated version of our charter in a manner which restricts shareholders' 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 equity securities convertible into shares.

We may spend up to 10% of our net assets calculated under RAS on the date of the adoption of the decision which gives rise to a share redemption demanded by the shareholders. If the value of shares in respect of which shareholders have exercised their right to demand repurchase exceeds 10% of our net assets, we will repurchase shares from each such shareholder on a pro-rata basis. Repurchase of the shares is made at a price agreed on by the board of directors, but it should not be less than the market price.

Registration and Transfer of Shares

Russian legislation requires that a joint stock company ensures maintenance of a register of its shareholders, which for a public joint stock company, shall be maintained by a registrar. Registrar NIKoil OJSC had maintained our register of shareholders since May 10, 2000. In July 2014, it has been merged into Independent Registration Company JSC (known as Computershare Registrar JSC prior to October 6, 2015) and on February 4, 2019, Independent Registration Company JSC has been merged into JSC IRC - R.O.S.T. which now maintains our register of shareholders by way of universal succession.

On December 19, 2019, our Board of Directors adopted a decision to terminate the existing agreement with JSC IRC - R.O.S.T. and enter into relevant agreement with JSC REESTR and starting from April 10, 2020 our register is maintained by REESTR.

The Federal Law No. 414-FZ "On the Central Depository" dated December 7, 2011 (the "Central Depository Law"), which came into force on January 1, 2012, set out a legal framework for establishment and operation of the central depository. On November 6, 2012, the Russian Federal Financial Markets Service granted the JSC National Settlement Depository the status of central depository which opened its nominee holder accounts in, among others, all securities registers of the issuers which are obliged to disclose information in accordance with Russian securities law. As we are required to make public disclosures, the above requirement is applicable to us, which means that the central depository became the only person having a nominee holder account in our share register. Also, the Central Depository Law prohibits persons maintaining securities registers from opening and depositing securities (save for limited exceptions) to other nominee holder accounts from the date of the opening of a nominee holder account with the central depository.

Ownership of our registered shares is evidenced by entries made in the register of shareholders, on the books of the central depository or a Russian licensed depository. Any of our shareholders may obtain an extract from the register of our shareholders maintained by the registrar or from their respective depository, as the case may be, certifying the number of shares that such shareholder holds. We are also entitled to obtain an extract from our shareholders' register which sets out all of our shareholders registered directly therein. In addition, we are entitled to obtain a list of nominal holders that opened depo accounts with the central depository, as well as a list of entities that have accounts opened with the nominal holders, given that such list is provided by the relevant nominal holder. However, we are unable to monitor transfers of our shares that are held on the books of depositaries registered with the central depository because underlying shareholders have no obligation to reveal and such depositaries have no obligation to notify us about such transfers. As a result, we can currently only identify our actual shareholders in a limited number of cases provided for by Russian law, including when requesting our registrar and the central depository to compile a list of shareholders of record for the General Shareholders' Meeting and when shareholders and ADS holders provide voting instructions together with disclosure of information, including ownership information, in accordance with Russian securities regulations.

The purchase, sale or other transfer of shares is accomplished through the registration of the transfer in the shareholder register, or the registration of the transfer with a depository if shares are held by a depository. The registrar or depository may not require any documents in addition to those required by Russian legislation in order to transfer shares in the register. Refusal to register the shares in the name of the transferee or, upon request of the beneficial holder, in the name of a nominee holder, is not allowed, except in certain instances provided for by Russian legislation, and may be challenged in court.

Reserve Fund

Russian legislation requires that each joint stock company establish a reserve fund to be used only to cover the company's losses, redeem the company's bonds and repurchase the company's shares in cases when other funds are not available. Our charter provides for a reserve fund of 15% of our charter capital, funded through mandatory annual transfers of at least 5% of our net profits until the reserve fund has reached the 15% requirement.

Disclosure of Information

Russian securities regulations require us to make the following periodic public disclosures and filings:

- posting on our website quarterly reports, containing information about us, our shareholders and depository, the structure of our management bodies, the members of the Board of Directors, our branches and representative offices, our shares, bank accounts and auditors, important developments during the reporting quarter, and other information about our financial and business activity;
- publishing any information (including inside information) concerning material facts and changes in our financial and business activity, including our reorganization, certain changes in the amount of our assets, decisions on share issuances, certain corporate events, such as mandatory or voluntary tender offers, record dates, certain changes in ownership and shareholding, filing of any material claim against us, obtainment or revocation of material licenses, entry into certain transactions, as well as shareholders' and certain board of directors' resolutions and certain information regarding our material subsidiaries;
- disclosing information on various stages of share placement, issuance and registration through publication of certain data as required by the securities regulations;

- disclosing our charter and internal corporate governance documents on our website;
- disclosing our annual report and annual financial statements prepared in accordance with RAS, as well as annual and interim financial statements prepared in accordance with IFRS;
- posting on our website a list of our affiliated companies and individuals on a quarterly basis;
- posting on our website a list of inside information; and
- other information as required by applicable Russian securities legislation.

General Shareholders' Meetings

Procedure

The powers of a shareholders' meeting are set forth in the Joint Stock Companies Law and in our charter. In a public joint stock company a shareholders' meeting may not decide on issues that are not included in the list of its competence by the Joint Stock Companies Law. Among the issues which our shareholders have the power to decide are:

- charter amendments;
- reorganization or liquidation;
- election and removal of members of the board of directors;
- determination of the amount of compensation for members of the board of directors;
- determination of the number, par value, class/type of authorized shares and the rights granted by such shares;
- changes in our charter capital in certain instances;
- appointment and removal of our independent auditor and of the members of our Auditing Commission and Counting Commission if it is obligatory for the company to have the Auditing Commission;
- consent or subsequent approval of certain interested party transactions and major transactions;
- participation in trade or industrial groups, or other associations of commercial entities;
- approval of certain internal documents and corporate records;
- distribution of profits and losses, including approval of dividends;
- redemption by the company of issued shares in cases provided by the Joint Stock Companies Law; and
- other matters, as provided for by the Joint Stock Companies Law and our charter.

Voting at a shareholders' meeting is generally based on the principle of one vote per share of common stock, with the exception of the election of the board of directors, which is done through cumulative voting. Decisions are generally passed by a majority vote of the voting shares present at a shareholders' meeting. However, for public joint stock companies Russian law requires a three-quarters majority vote of the voting shares present at a shareholders' meeting to approve the following:

- charter amendments;
- reorganization or liquidation;
- consent or subsequent approval of major transactions involving assets in excess of 50% of the balance sheet value of the company's assets calculated under RAS;

- the number, par value, and category (type) of authorized shares and the rights granted by such shares;
- repurchase by the company of its issued shares;
- any issuance of shares or securities convertible into shares of common stock by private subscription;
- issuance by open subscription of shares of common stock or securities convertible into common stock, in each case, constituting 25% or more of the number of issued and outstanding shares of common stock;
- decrease of the charter capital through reduction of the par value of shares; or
- filing of an application for delisting of our shares or securities convertible into shares.

Moreover, a ninety-five majority vote of the voting shares present at a shareholders' meeting is required to approve 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 equity securities convertible into shares (*i.e.*, transformation to a non-public company).

The quorum requirement for our shareholders' meetings is met if holders of shares (or their representatives) accounting for more than 50% of the issued voting shares are present. If the 50% quorum requirement is not met, another shareholders' meeting with the same agenda may (and, in case of an annual shareholders' meeting must) be scheduled and the quorum requirement is satisfied if holders of shares (or their representatives) accounting for at least 30% of the issued voting shares are present at that meeting.

The annual shareholders' meeting must be convened by the board of directors between March 1 and June 30 of each year, and the agenda must include the following items:

- election of the members of the board of directors;
- approval of the annual report and the annual financial statements, including the balance sheet and profit and loss statement;
- approval of distribution of profits, including approval of dividends, and losses, if any;
- appointment of an independent auditor; and
- appointment of the members of the auditing commission.

A shareholder or group of shareholders owning in the aggregate at least 2% of the issued voting shares may introduce proposals for the agenda of the annual shareholders' meeting and may nominate candidates for the board of directors, counting commission and auditing commission. Any agenda proposals or nominations must be provided to the company no later than 100 calendar days after the preceding financial year end.

Extraordinary shareholders' meetings may be called by the board of directors on its own initiative, or at the request of the auditing commission, the independent auditor or a shareholder or group of shareholders owning in the aggregate at least 10% of the issued voting shares as of the date of the request. The decision to call or reject the call for an extraordinary shareholders' meeting shall be made by the board of directors within five days from the receipt date of the request and sent to the party that requested the meeting within three days after such a decision was made.

A general meeting of shareholders may be held in a form of a meeting or by absentee ballot. The form of a meeting contemplates the adoption of resolutions by the general meeting of shareholders through the attendance of the shareholders or their authorized representatives for the purpose of discussing and voting on issues of the agenda, provided that if a ballot is mailed to shareholders for participation at a meeting convened in such form, the shareholders may complete and mail the ballot back to the company without personally attending the meeting. A general meeting of the shareholders by absentee ballot contemplates the determination of collecting shareholders' opinions on issues of the agenda by means of a written poll.

The following issues cannot be decided by a shareholders' meeting by absentee ballot:

- election of the members of the board of directors;
- election of the auditing commission;
- approval of a company's independent auditor; and
- approval of the annual report, the annual financial statements.

Notice and Participation

Pursuant to the Joint Stock Companies Law, persons registered in the register of shareholders and entitled to participate in a general shareholders' meeting must be notified of the meeting, whether the meeting is to be held in the form of a meeting or by absentee ballot, no less than 21 days (or 30 days if the agenda includes an item on reorganization) prior to the date of the meeting, and such notification shall specify the agenda for the meeting. However, if it is an extraordinary shareholders' meeting to elect the board of directors, persons registered in the register of shareholders and entitled to participate in the general shareholder's meeting must be notified at least 50 days prior to the date of the meeting. Only those items that were set out in the agenda to shareholders may be voted upon at a general shareholders' meeting.

If a nominal holder of the shares registers in the register of shareholders, then a notification of the shareholders' meeting shall be sent to the nominal holder. The nominal holder must notify its clients in accordance with Russian legislation or an agreement with the client. The list of persons entitled to participate in a general shareholders' meeting is to be compiled on the basis of data in our shareholders register on the date established by the board of directors, which date may neither be earlier than the 10 days after the date of adoption of the board resolution to hold a general shareholders' meeting nor more than 25 days before the date of the meeting (or, in the case of an extraordinary shareholders' meeting to elect the board of directors, not later than 55 days before the date of the meeting).

The right to participate in a general meeting of shareholders may be exercised by a shareholder as follows:

- by personally participating in the discussion of agenda items and voting thereon;
- by sending an authorized representative to participate in the discussion of agenda items and to vote thereon;
- by submitting a written ballot reflecting the shareholders' voting on the agenda items;
- by delegating the right to submit such written ballot to an authorized representative; or
- by sending information on their willingness to the nominee holder for further transfer to the registrar in accordance with the requirements of the Russian securities law.

The decision of the Board of Directors to convene the General meeting of shareholders may provide for the possibility to fill the electronic voting ballots online at website on the Internet.

Board of Directors

Our Board of Directors is elected through cumulative voting. Under cumulative voting, each shareholder may cast an aggregate number of votes equal to the number of shares held by such shareholder multiplied by the number of persons to be elected to our Board of Directors, and the shareholder may give all such votes to one candidate or spread them between two or more candidates. Before the expiration of their term, the directors may be removed as a group at any time without cause by a majority vote of a shareholders' meeting.

The Joint Stock Companies Law requires at least a five-member board of directors for all joint stock companies, at least a seven-member board of directors for a joint stock company with more than 1,000 holders of voting shares, and at least a nine-member board of directors for a joint stock company with more than 10,000 holders of voting shares. Only natural persons (as opposed to legal entities) are entitled to sit on the board. Members of the board of directors are not required to be shareholders of the company. The actual number of directors is determined by the company's charter or a decision of the shareholders' meeting. Our charter provides that our Board of Directors consists of at least seven members, which number may be increased pursuant to a decision of the general meeting of shareholders. Currently, our Board of Directors consists of nine members.

The Joint Stock Companies Law prohibits a board of directors from acting on issues that fall within the competence of the general shareholders' meeting. Our Board of Directors has the power to perform the general management of the company, and to decide, among others, the following issues:

- determination of our business priorities;
- approval of our annual plans, including financial plans;
- convening annual and extraordinary shareholders' meetings, except in certain circumstances specified in the Joint Stock Companies Law;
- approval of the agenda for the shareholders' meeting and determination of the record date for shareholders entitled to participate in a shareholders' meeting;
- placement of our bonds and other securities in cases specified in the Joint Stock Companies Law;
- determination of the price of our property and of our securities to be placed or repurchased, as provided for by the Joint Stock Companies Law;
- repurchase of our shares, bonds and other securities in certain cases provided for by the Joint Stock Companies Law;
- appointment and removal of our President and determination of the number of the members of our Management Board and their election;
- formation of the Board of Directors committees;
- determination of principles and approaches to risk management, internal control and audit within the company;
- transfer of powers of the company's CEO to a managing organization of an individual manager;
- recommendations on the amount of the dividend and the payment procedure thereof;
- recommendations on the amount of remuneration and compensation to be paid to the members of our Auditing Commission and on the fees payable for the services of an independent auditor;
- use of our reserve fund and other funds;

- approval of our internal documents, except for those documents whose approval falls within the competence of our shareholders or the president;
- consent or subsequent approval of major and interested party transactions in certain cases provided for by the Joint Stock Companies Law;
- increasing our charter capital by issuing additional shares within the limits of the authorized charter capital, except in certain circumstances specified in our charter;
- approval of our share registrar and the terms of the agreement with it; and
- other issues, as provided for by the Joint Stock Companies Law and our charter.

Our charter generally requires a majority vote of the directors present for an action to pass, with the exception of actions for which Russian legislation requires a unanimous vote or a majority vote of the disinterested and independent directors, as described therein. A board meeting is considered duly assembled and legally competent to act when a majority of elected directors is present.

Our internal regulation “On the Board of Directors of Mobile TeleSystems Public Joint Stock Company” (the “Regulation”) was approved by the annual shareholders’ meeting on June 28, 2018. In accordance with clause 2.2.2 of the Regulation, the members of the Board of Directors have the right to:

- receive information regarding our operations;
- propose issues to be discussed by the Board of Directors;
- review the minutes of the Board of Directors meetings;
- request to include in the minutes of the meetings their personal opinion concerning issues on the agenda and decisions made with respect thereto;
- receive a remuneration and/or compensation of expenses related to the execution of their duties as members of the Board of Directors in accordance with decisions of the general shareholders’ meeting; and
- be present at the general shareholders’ meeting and answer questions regarding our operations.

In accordance with clause 2.3.2 of the Regulation, the members of the Board of Directors must:

- be loyal to the Company;
- execute their duties in a confident and scrupulous manner;
- act within their rights and duties in accordance with the goals and objectives of the Board of Directors;
- not distribute confidential information concerning us and protect such information from unlawful and improper use and publishing, and not use such confidential information in their own or third parties’ commercial purposes;
- participate in the work of the Board of Directors;
- participate in the voting process during the Board of Directors meetings;
- complete the tasks assigned by the Board of Directors;
- evaluate the risks and consequences of the decisions made;
- inform us on a timely basis about their participation in the management of other companies and changes in such participation;

- restrain from voting on issues of personal interest;
- inform the Board of Directors about future deals in which they may have a personal interest;
- disclose information about the holding, disposal or acquisition of our shares and other securities;
- restrain from actions, which could lead to a conflict between their personal and our interests; and
- perform other responsibilities as provided by our charter and the Regulation.

Interested Party Transactions

Under the Joint Stock Companies Law, certain transactions are defined as “interested party transactions.” Such transactions include transactions involving a member of the board of directors, the company’s CEO, a member of the company’s management board), any person controlling the company, or any person who is able to give binding instructions to the company, if that person and/or that person’s spouse, parents, children, adoptive parents or children, full and half brothers or sisters and/or their controlled entities, is/are:

- a party to, or beneficiary of, a transaction with the company, whether directly or as a representative or intermediary;
- controlling persons of a legal entity that is a party to, or beneficiary of, a transaction with the company, whether directly or as a representative or intermediary; or
- a member of any governing body of a company that is a party to, or beneficiary of, a transaction with the company, whether directly or as a representative or intermediary, or a member of any governing body of a management organization of such a company.

Pursuant to the Joint Stock Companies Law a “controlling person” is deemed to be a person (i) directly or indirectly controlling over 50% of the voting shares in another legal entity (on the basis of an instruction, a shareholders’ agreement or other agreements); or (ii) having the right to appoint the sole executive body or more than half of the governing body of a controlled entity. A controlled entity is understood to be a legal entity directly or indirectly controlled by the controlling entity.

Pursuant to the changes to the Joint Stock Companies Law, which entered into force on January 1, 2017, transactions defined as “interested party transactions” do not require a mandatory prior approval by disinterested directors or shareholders of the company. However, a company shall notify members of a board of directors, management board or shareholders (if all members of the board of directors are deemed interested or a board of directors is not formed in a company) of a contemplated interested party transaction not later than 15 days prior to execution of such transaction, and the company’s sole executive body, members of its board of directors and management board or a shareholder owning at least 1% of the company’s voting shares may request consent for such interested party transaction.

In public joint stock companies consent or subsequent approval of the transaction shall be granted (if requested by the sole director, a member of the management board, a member of the board of directors or a shareholder owning at least 1% of the company’s voting shares) by a majority of disinterested directors of the company which within one year prior to the decision:

- 1) did not act as persons performing functions of the sole executive body, including its executive manager, members of the company’s management board or members of the management bodies of the company’s managing organization;

2) did not have spouses, parents, children, adoptive parents and adopted children, full and half brothers and sisters acting as members of the company's management bodies, members of the management bodies of the company's managing organization or of its executive manager; and

3) did not control the company or the company's managing organization (including its executive manager) or were not entitled to issue instructions binding on the company (collectively, "independent directors").

Consent or subsequent approval by a majority of shareholders who are not interested in the transaction shall be granted if:

- the value of such transaction or a number of interrelated transactions is 10% or more of the balance sheet value of the company's assets determined under RAS;
- the transaction or a number of interrelated transactions involves a sale of common shares, in an amount exceeding 2% of the company's issued common stock, or preference shares, in an amount exceeding 2% of the company's issued stock, unless the charter of a company provides for a lesser amount of shares;
- the number of directors who are not interested in the transaction is not sufficient to constitute a quorum; or
- the number of directors who are not interested in the transaction and meet the requirements established by clause 3, Article 83 of the Federal Law "On Joint Stock Companies" becomes less than two, unless the charter of a company provides for a higher quorum for a board of directors meeting on this issue.

Consent or subsequent approval of interested party transactions is not required nor can be requested in the following instances:

- the transactions are concluded in the ordinary course of business, provided that the company has concluded similar transactions with disinterested parties on substantially similar terms over a long time;
- the company has only one shareholder that simultaneously performs the functions of the company's CEO;
- all shareholders owning voting shares of the company are deemed interested in such transactions and there are no other persons interested in such transactions;
- the transactions constitute the issuance of shares or securities convertible into shares, including by way of subscription;
- the transactions constitute the issuance of bonds by public subscription or repurchase of bonds;
- the transactions arise from the repurchase, whether mandatory or not, by the company of its issued shares;
- the transactions constitute transfer of assets within the framework of reorganization, in particular under merger and accession agreements; or
- the transactions are mandatory for the company pursuant to Russian law and must be concluded on the basis of fixed prices and tariffs adopted by a competent state body;
- the transactions are public agreements which terms are similar to other public agreements executed by the company;
- the transactions constitute the agreements set out by certain provisions of the Federal Law of the Russian Federation No. 35 "On Electricity Power" dated 26 March 2003;

- the transactions concluded on the same terms as preliminary contracts previously approved as interested party transactions;
- the transactions concluded in an open tender, if such tender terms were previously approved by the Board of Directors;
- the value of the transaction or the subject matter under the transaction does not exceed 0.1% of the company's balance sheet assets calculated according to RAS and it also does not exceed the threshold set out by the CBR for these purposes.

Major Transactions

The Joint Stock Companies Law defines a “major transaction” as a transaction, or a number of interrelated transactions entered into beyond the ordinary course of business connected with the direct or indirect acquisition or disposal, or a possibility of disposal (whether directly or indirectly) of property (including intellectual property) having a value of 25% or more of the balance sheet value of the assets of a company determined under RAS, as well as in other cases provided by the Joint Stock Company Law.

Consent or subsequent approval of major transactions is not required nor can be requested in the following instances:

- the company has only one shareholder that simultaneously performs the functions of the company's CEO;
- the transactions involving the placement of common stock, or securities convertible into common stock or transactions involving services provided in connection with such placements;
- the transactions constitute transfer of assets within the framework of reorganization, in particular under merger and accession agreements;
- the transactions to be executed by the company pursuant to the federal laws and/or other regulations of the Russian Federation and priced in accordance with the regulations of the Russian government or other federal bodies authorized by the Russian government;
- the transactions are public agreements which terms are similar to other public agreements executed by the company;
- the transactions arising from a mandatory tender offer to purchase company's issued shares or securities convertible to shares;
- the transactions concluded on the same terms as the preliminary contracts previously approved as major transactions.

Major transactions involving assets having a value ranging from 25% to 50% of the balance sheet value of the assets of a company determined under RAS require unanimous approval by all members of the board of directors or, failing to receive such approval, a simple majority vote of a shareholders' meeting.

Major transactions involving assets having a value in excess of 50% of the balance sheet value of the assets of a company determined under RAS require a three-quarters majority vote of a shareholders' meeting.

Change in Control

Anti-takeover Protection

Russian legislation requires the following:

- A person intending to acquire more than 30% of a public joint stock company's ordinary shares and voting preferred shares (including, for such purposes, shares already owned by such person and its affiliates), will be entitled to make a public tender offer to other holders of such shares or securities convertible into such shares (the "**voluntary offer**").
- A person that has acquired more than 30% of a public joint stock company's ordinary shares and voting preferred shares (including, for such purposes, shares already owned by such person and its affiliates) will, except in certain limited circumstances, be required to make, within 35 days of acquiring such shares, a public tender offer for other shares of the same class (the "**mandatory offer**") and for securities convertible into such shares, at the price which is not less than the price determined based on a weighted average market price of the shares over the six month period before the filing of the offer with the CBR as described below, if the shares are publicly traded, or on a price supplied by an appraiser if the shares have no or insufficient (less than six months) trading history. The public tender offer price may not be less than the highest price at which the offeror or its affiliated persons purchased or undertook to purchase the relevant securities over the six month period before the offer was sent to the company. From the moment of acquisition of more than 30% of the shares until the date the offer was sent to the company, the person making the offer and its affiliates will be able to register for quorum purposes and vote only 30% of the company's ordinary shares and voting preferred shares (regardless of the size of their actual holdings). These rules also apply to acquisitions resulting in a person or a group of persons owning more than 50% and 75% of a company's issued ordinary shares and voting preferred shares.
- A person that as a result of an offer described in either of the preceding paragraphs becomes (individually or with its affiliates) the owner of more than 95% of the company's ordinary shares and voting preferred shares, must buy out the remaining shares of the company as well as other securities convertible into such shares upon request of the holders of such shares or other securities, and may require such holders to sell such shares and other securities, at the price determined in the manner described in the preceding paragraph but not less than (i) the price of the preceding acquisition of the company's relevant securities under an offer described in either of the preceding paragraphs as a result of which the offeror and its affiliates acquired over 95% of the company's ordinary shares and voting preferred shares; or (ii) the highest price at which after the expiration date of an offer described in either of the preceding paragraphs the offeror or its affiliates purchased or undertook to purchase the relevant securities.
- An offer of the kind described in either of the preceding three paragraphs must be accompanied by a bank guarantee of payment. If the company is publicly traded, prior notice of the offer must be filed with the CBR; otherwise, notice must be filed with the CBR no later than the date of the offer. The CBR may order amendments to the terms of the offer (including price) in order to bring them into compliance with the rules.
- Once such an offer has been made, competing offers for the same securities can be made by third parties and, in certain circumstances, acceptance of the initial offer may be withdrawn by the security holders who choose to accept such competing offer. From the making of such an offer until 20 days after its expiry (which period may in certain cases exceed 100 days) the company's shareholders' meeting will have the sole power to make decisions on charter capital increase, issuance of securities, approval of interested party and certain major transactions, and on certain other significant matters.

The above rules may be supplemented through CBR rulemaking, which may result in a wider, narrower or more specific interpretation of these rules by the government and judicial authorities, as well as by market participants.

Approval of the FAS

Pursuant to the Federal Law on Competition, until January 5, 2016, the FAS had to approve in advance acquisitions of voting shares in a company involving (1) companies with a combined value of assets or combined annual revenues calculated under RAS exceeding a certain threshold, or (2) companies included in a register of business entities having more than a 35% share of a certain commodity market or otherwise occupying a dominant position on the market, and which would result in acquisition by a person (or a group of affiliates) of more than 25%, 50% or 75% of voting shares of a joint stock company, or a participation interest according 1/3, 50%, 2/3 of voting rights in a limited liability company, or in a transfer between such companies of assets or rights to assets, the value of which exceeds a certain amount.

According to the amendments made by the Federal law No. 275-FZ dated October 5, 2015 starting from January 5, 2016 the regulations in relation to the abovementioned register were repealed and only the combined value of assets or combined annual revenues of the companies involved in the transaction is taken in account. See also “Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business—If we are found to have a dominant position in the markets where we operate and are determined to have abused this position, the FAS may be entitled to regulate our subscriber tariffs and impose certain restrictions on our operations.”

Strategic Industries Law

Pursuant to the Strategic Foreign Investment Law, investments resulting in a foreign entity or a group of entities receiving control over a company with strategic importance for the national defense and security of the Russian Federation (a “strategic company”) or acquisition of fixed production assets of a strategic company having value of at least 25% of its assets calculated under RAS require prior approval from the state authorities. The procedure for issuing such consent involves a special governmental commission on control of foreign investments, which was established by the Resolution of the Government of Russia 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. For the purposes of the Strategic Foreign Investment Law “control” means an ability to determine, directly or indirectly, decisions taken by a strategic company, whether through voting at the general shareholders’ (participants’) 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. As a result, “control” will generally be deemed to exist if an entity or a group of entities acquires more than 50% of the shares (or participation interest in share capital) of a strategic company, or if through a contract or 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.

Furthermore, if a foreign entity or group of entities holding securities of a strategic company or other entity that exercises control over this company becomes a direct or indirect holder of voting shares in an amount that is considered to give it direct or indirect control over this company in accordance with the Strategic Foreign Investment Law due to a change in allocation of voting shares pursuant to the procedures provided by Russian law (*e.g.*, as a result of a buy-back of its shares by the relevant company), then such entity or group of entities will have to apply for state approval of its control within three months after it received such control.

Moreover, the Russian prime minister, who acts as President of the Commission, is entitled to impose an obligation of prior approval in regard of any transaction involving a Russian enterprise, regardless of whether such enterprise operates within a “strategic” industry or not. The decision of the Commission President has to be sent to the investor by the FAS within three business days. Upon receipt the investor will need to file the necessary application with the FAS to obtain approval. Failure to comply will result in penalties set out by the legislation.

In addition, foreign investors are required to notify the FAS about any transactions undertaken by them resulting in the acquisition of 5% or more of the charter capital of a strategic company and other transactions or other actions preapproved in accordance with the Strategic Foreign Investment Law.

See also “Item 3. Key Information—D. Risk Factors—Legal Risks and Uncertainties—The Strategic Foreign Investment Law imposes certain restrictions on us and our existing and potential foreign shareholders, which could have a material adverse effect on our business, financial condition, results of operations and prospects.”

Disclosure of Ownership

Under Russian law, a person acquiring, directly or indirectly, 5% or more of our voting shares is required to notify us and the CBR of, and we must then publicly disclose, such acquisition, as well as any subsequent acquisitions or disposals resulting in the crossing of 5%, 10%, 15%, 20%, 25%, 30%, 50%, 75% or 95% thresholds of our voting shares by such person.

A holder of more than 5% of our voting shares is required to file with us and the CBR information about its controlling shareholder (if any) or notify us and the CBR about the absence of any such controlling shareholders.

Our subsidiaries are required to notify us and the CBR about the acquisition of our common shares. We are required to publicly disclose the acquisition of our voting shares by our subsidiaries.

Notification of Foreign Ownership

Legal entities and individual entrepreneurs who acquire shares in Russian joint stock companies are required to notify the Russian tax authorities (in case the share of direct participation exceeds 10%) within one month following such acquisition.

C. Material Contracts

As of December 31, 2019 we are not the party to any contracts considered material to our financial results or operations except for loan agreement with MTS International Funding Limited relating to the issued loan participation notes and ruble bonds issued. For more information, see “Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources.”

D. Exchange Controls

The Federal Law on Currency Regulation and Currency Control which came into effect on June 18, 2004 sets forth certain restrictions on settlements between residents of Russia with respect to operations involving foreign securities (including ADSs), including requirements for settlement in Russian rubles.

Repatriation of Export Proceeds

Russian companies must repatriate 100% of their receivables from the export of goods and services (with a limited number of exceptions concerning, in particular, certain types of secured financing).

Restrictions on the remittance of dividends, interest or other payments to non-residents

The Federal Law on Foreign Investments in the Russian Federation of July 9, 1999 specifically guarantees foreign investors the right to repatriate their earnings from Russian investments. However, the evolving Russian exchange control regime may materially affect your ability to do so.

Currently, ruble dividends on common shares may be converted into U.S. dollars without restriction. However, the ability to convert rubles into U.S. dollars is also subject to the availability of U.S. dollars in Russia's currency markets. Although there is an existing market within Russia for the conversion of rubles into U.S. dollars, including the interbank currency exchange and over-the-counter and currency futures markets, the further development of this market is uncertain.

E. Taxation

Certain Russian Tax Consequences

The following discussion describes the material Russian corporate income tax and personal income tax consequences to you if you are a U.S. holder of ADSs and a resident of the United States for purposes of the United States—Russia income tax treaty and are fully eligible for benefits under the United States—Russia income tax treaty. Subject to certain provisions of the United States—Russia income tax treaty relating to limitations on benefits, a U.S. resident under the treaty is generally defined as a person liable, under the laws of the United States, to U.S. tax (other than taxes with respect to only of income from sources in the United States or capital situated therein) by reason of your domicile, residence, citizenship, place of incorporation, or any other similar criterion (and, for income derived by a partnership, trust or estate, residence is determined in accordance with the residence of the person liable to tax with respect to such income). The treaty provides for a procedure to resolve matters where a resident of the United States qualifies as a Russian tax resident under Russian domestic rules. The treaty also provides for the non-application of treaty benefits to certain types of entities.

Additionally, the benefits under the United States—Russia income tax treaty discussed in this document generally are not available to U.S. persons who hold ADSs in connection with the conduct of a business in the Russian Federation through a permanent establishment as defined in the United States—Russia income tax treaty. Subject to certain exceptions, a U.S. person's permanent establishment under the United States—Russia income tax treaty is a fixed place of business through which such person carries on business activities in the Russian Federation (generally including, but not limited to, a place of management, a branch, an office and a factory). Under certain circumstances, a U.S. person may be deemed to have a permanent establishment in the Russian Federation as a result of activities carried on in the Russian Federation through agents of the U.S. person. This summary does not address the treatment of holders described in this paragraph.

Treaty benefits may be potentially available to U.S. tax residents that are not subject to limitations on treaty benefits under the treaty, do not operate through a permanent establishment in Russia and are foreign legal entities (*i.e.*, a legal entity or organization in each case not organized under Russian law) or individuals not considered Russian tax residents under Russian law. Under current Russian law, the Russian tax residency for entities is generally determined based on the place of management of this entity; for individuals is generally determined based on the number of days a person spends in Russia in a 12-month rolling period. Law specifies that an individual present in Russia for an aggregate period of 183 days in any consecutive 12-month period will be considered as a tax resident. Since tax year in Russia is a calendar year the final tax residency status of an individual taxpayer shall still be defined for a whole calendar year by counting the days spent in Russia within that relevant calendar year. Accordingly, to be considered a Russian tax resident, the taxpayer should spend at least 183 days in Russia in a calendar year. The following discussion is based on:

- Russian tax legislation; and
- the United States—Russia income tax treaty (and judicial and administrative interpretations thereof by the Russian authorities).

All of the foregoing tax consequences are based on information in effect as of the date of this document and are subject to change, possibly on a retroactive basis, after the date of this document. This discussion is also based, in part, on representations of the depositary, and assumes that each obligation in the deposit agreement and any related agreements will be performed in accordance with its terms. The discussion with respect to Russian legislation is based on our understanding of current Russian law and Russian tax rules, which are subject to frequent change and varying interpretations.

The following discussion is not intended as tax advice to any particular investor. It is also not a complete analysis or listing of all potential Russian corporate income and personal income tax consequences to you of ownership of ADSs. We urge you to consult your own tax adviser regarding the specific Russian tax consequences of the ownership and disposition of ADSs under your own particular factual circumstances.

Specific uncertainties associated with the tax treatment of ADS holders

The Russian tax rules in relation to ADS holders (that would affect U.S. holders) are characterized by significant uncertainties and limited interpretive guidance. Recent amendments to the tax rules have clarified the status of the ADS holders as beneficial owners of the income from the underlying shares by establishing that the custodian holding the depo account with the shares underlying the ADSs acting as the tax agent and determines amounts of the withholding tax based on the information about the ADS holders and their tax residency status as provided by the program depositary. However, the application of the baseline tax rate for ADS holders and any double tax treaty relief is available only if the tax treaty residence of the holder is provided to the custodian along with the other information prescribed by the Tax Code. In relation to ADS holders such information is to be provided by the ADS holders to the depositary, who relays it to the custodian, who acts as the tax agent and withholds the taxes when making transferring the dividends to the depositary. It is currently unclear how the depositary will collect the necessary information from ADS holders. Thus, while a U.S. holder may technically be entitled to benefit from the provisions of the United States—Russia income tax treaty, in practice such relief may be difficult or impossible to obtain.

Russian tax law and procedures are also not well developed, and local tax inspectors have considerable autonomy and often interpret tax rules without regard to the rule of law. Both the substantive provisions of Russian tax law and the interpretation and application of those provisions by the Russian tax authorities may be subject to more rapid and unpredictable change than in jurisdictions with more developed capital markets.

Taxation of Dividends

Dividends paid to U.S. holders generally will be subject to Russian withholding tax at a 15% rate. The tax burden may be reduced to 5% or 10% under the United States—Russia income tax treaty for eligible U.S. holders; a 5% rate may potentially apply for U.S. holders who are legal entities owning 10% or more of the company’s voting shares, and a 10% rate applies to dividends paid to eligible U.S. holders in other cases, including dividend payments to individuals and legal entities owning less than 10% of the company’s voting shares. Reduced tax rates may apply in case the information, required by the Russian Tax Code, is presented to the tax agent fully and in time; otherwise, the tax agent is required to use the baseline tax rate established by the code, or tax rate set by the applicable tax treaty, not taking into account the percentage of share in Charter Capital, the amount of investment, or term of ownership, whichever is appropriate. See also “—United States—Russia Income Tax Treaty Procedures.”

From a practical perspective, it may have not been possible for the depositary to collect the necessary information from all ADS holders and submit the relevant information to the custodian. Therefore, with respect to legal entities or organizations who are U.S. holders, the custodian may be obligated to withhold income tax at a rate of 15% from dividend payments made to the trustee, unless the information on the ADS holder, the respective amount of ADS held and its tax residency is provided to the depositary and thereafter to the custodian within 7 days of the date on which the shareholders entitled to dividend payout are determined according the relevant decision of the general shareholders meeting. The same amendments have also introduced an expedited refund process whereby the information regarding the ADSs not provided to the custodian can be submitted within 25 days of the date of the payment of the dividends to the depositary in order for the custodian to refund the difference between the increased 15% tax rate used and the tax rate the respective ADS holders are entitled to according to their tax residency, however this process is new and not tested and it is unclear how it will work in practice. Although non-resident holders of ADSs may apply for a refund of a portion of the tax withheld under an applicable tax treaty, the procedure to do so may be time consuming and no assurance can be given that the Russian tax authorities will grant a refund. See “—United States—Russia Income Tax Treaty Procedures.”

If the appropriate information is not provided to the depositary for transfer to the custodian in a timely manner, the custodian may have to withhold tax at the 15% rate, and U.S. holders that are legal entities qualifying for a reduced rate under the United States—Russia income tax treaty then may file claims for a refund within three years with the Russian tax authorities.

With respect to individuals who are U.S. holders of ADSs and who are Russian tax non-residents, the custodian may also be obligated to withhold income tax at the rate of 15% from dividend payments made to the depositary. Similarly to the order applicable to legal entities, reduced tax rates may apply in case the information, required by the Russian Tax Code, is presented to the tax agent fully and in time; otherwise, the tax agent is required to use the baseline tax rate established by the code, or tax rate set by the applicable tax treaty, not taking into account the percentage of share in Charter Capital, the amount of investment, or term of ownership, whichever is appropriate. Where withholding of personal income tax is not performed, individuals who are U.S. holders of ADSs will then be required to submit an annual personal tax return to the Russian tax authorities and pay Russian income tax at a rate of 15% as under Russian law an individual should report on his or her tax liabilities in case the relevant tax was due but not withheld by a tax agent from the relevant payment. When submitting the tax return, individuals who are U.S. holders may claim an application of the reduced rates of withholding tax established by the relevant treaty, provided that the procedures described in “—United States—Russia Income Tax Treaty Procedures” are complied with. Obtaining the respective approvals from the tax authorities may be time-consuming and burdensome.

For individuals claiming treaty relief, the documents substantiating the right for treaty benefits should be submitted to the Russian tax authorities within one year after the end of the year to which these benefits relate. In practice, where withholding is performed, the tax authorities may refuse to refund or credit the 15% tax withheld from payment of dividends to the depositary and, therefore, it is possible that individuals who are U.S. holders may be subject to up to a 30% effective tax rate (general tax rate for Russian tax non-residents) on their share of dividends.

The amendments to the Russian Tax Code, which came into effect from January 1, 2015, exclude dividends from the scope of payments subject to 30% withholding tax rate.

Taxation of Capital Gains

Legal entities and Organizations

Income received by a foreign company from the sale, exchange or other disposal (assuming that such income is not related to a permanent establishment of a foreign company in Russia) of shares (participation interest) in an organization in which over 50% of the assets consist of immovable property located in Russia, as well as financial instruments derived from such shares, is treated as income derived from a source in the Russian Federation and is subject to withholding tax at a rate of 20%. However, gains arising from the disposition of the securities which are traded on an organized stock exchange are not treated as Russian-source income, and should not be subject to taxation in Russia.

The amount of such income is typically determined as the sales price of shares (participation interest). However, if documentary support for the acquisition cost of the shares (participation interest) is available, the tax may instead be assessed on the basis of the difference between the sales price and the acquisition cost (including other related costs) if documentary evidence of such costs is submitted to the tax agent. The Russian Tax Code also establishes special rules for calculating the tax base for the purposes of transactions with securities. However, an exemption applies if immovable property located in Russia constitutes more than 50% of our assets and the securities are traded on a foreign stock exchange. The determination of whether more than 50% of our assets consist of immovable property located in Russia is inherently factual and is made on an on-going basis and the relevant Russian legislation and regulations in this respect are not entirely clear. Hence, there can be no assurance that immovable property owned by us and located in Russia does not currently and will not constitute more than 50% of our assets as at the date of the sale of ADSs by non-residents.

Where the ADSs are sold by legal entities or organizations to persons other than a Russian company or a foreign company or an organization with a registered permanent establishment in Russia, even if the resulting capital gain is considered taxable in Russia, there is currently no mechanism under which the purchaser will be able to withhold the tax and remit it to the Russian budget.

Under the United States—Russia income tax treaty, capital gains from the sale of shares and/or ADSs by eligible U.S. holders should be relieved from taxation in Russia, unless 50% or more of our assets (the term “fixed assets” is used in the Russian version of the treaty) were to consist of immovable property located in Russia.

Individuals

The taxation of the income of tax non-resident individuals depends on whether this income is received from Russian or non-Russian sources. Russian tax law considers the place of sale as an indicator of source. Accordingly, the sale of securities outside of Russia by individuals who are non-resident holders should not be considered Russian source income and, therefore, should not be taxable in Russia. However, Russian tax law gives no clear indication as to how the place of sale of securities should be defined in this respect. Therefore, the Russian tax authorities may have a certain amount of flexibility in concluding whether a transaction is in Russia or out of Russia.

The sale, exchange or other disposal of the shares and ADSs by non-resident individual holders in Russia will be considered Russian source income and will be subject to tax at a rate of 30% on the difference between the sales price and the acquisition costs of such securities, as well as other documented expenses, such as depositary expenses and broker fees, among others, defined by the tax rules.

Under Russian law, the acquisition costs and related expenses can be deducted at the source of payment if the sale was made by a non-resident holder through a licensed Russian broker, trust manager or other person that carries out operations under agency or commission agreements, or other agreements in favor of a taxpayer. Such party (as defined above) should also act as a tax agent and withhold the applicable tax. Such tax agent will be required to report to the Russian tax authorities the amount of income realized by the non-resident individual and tax withheld upon the sale of the securities.

Otherwise, if the sale is made to individuals but not through a tax agent, generally no withholding needs to be made and the non-resident holder will have an obligation to file a tax return, report his income realized and apply for a deduction of acquisition expenses (which includes filing of support documentation). Although Russian tax law imposes tax agent responsibility only on professional trustees, brokers or dealers, in practice, the tax authorities may require Russian legal entities and organizations or foreign companies with any registered presence in Russia that are not professional trustees, dealers or brokers to act as tax agents and withhold the applicable tax when purchasing securities from non-resident individuals.

Under the United States—Russia income tax treaty, capital gains from the sale of the ADSs by eligible U.S. holders should be relieved from taxation in Russia, unless 50% or more of our assets (the term “fixed assets” is used in the Russian version of the United States—Russia Tax Treaty) were to consist of immovable property located in Russia. If this 50% threshold is not met, individuals who are U.S. holders may seek to obtain the benefit of the United States—Russia income tax treaty in relation to capital gains resulting from the sale, exchange or other disposition of the ADSs.

In order to apply the provisions of relevant double tax treaties, the individual holders should receive clearance from the Russian tax authorities as described below. See “—United States—Russia Income Tax Treaty Procedures” below.

United States—Russia Income Tax Treaty Procedures

The Russian Tax Code does not contain a requirement that a non-resident holder that is a legal entity or organization must obtain tax treaty clearance from the Russian tax authorities prior to receiving any income in order to qualify for benefits under an applicable tax treaty. However, a non-resident legal entity or organization seeking to obtain relief from or reduction of Russian withholding tax under a tax treaty must provide to a Russian company or foreign company or organization acting through its Russian registered presence, which is a tax agent (*i.e.*, the entity paying income to a non-resident) a confirmation of its tax treaty residence that complies with the applicable requirements and a Russian translation attached to it in advance of receiving the relevant income. The tax residency confirmation needs to be renewed on an annual basis and provided to the payer of income before the first payment of income in each calendar year. Starting from 2017, in order to benefit from the tax treaty the recipient of passive income has to provide a confirmation that it is the beneficial owner of this income.

A U.S. holder may obtain the appropriate certification by mailing completed forms, together with the holder's name, taxpayer identification number, the tax period for which certification is required, and other applicable information, to the United States Internal Revenue Service. The procedures for obtaining certification are described in greater detail in the instructions to Internal Revenue Service Form 8802. As obtaining the required certification from the Internal Revenue Service may take at least six to eight weeks, U.S. holders should apply for such certification as soon as possible.

In accordance with the Russian Tax Code, to rely on tax treaty benefits, a non-resident holder who is an individual must present to the tax authorities an official document confirming his residency in the home country issued by the competent authorities in his/her country of residence and also other supporting documentation including a statement confirming the income received and the tax paid in the home country, also confirmed by the relevant foreign tax authorities, duly translated and apostilled or pass through a consular legalization. Technically, such a requirement means that an individual cannot rely on the tax treaty until he or she pays the tax in the jurisdiction of his or her residence. Therefore, advance relief from or reduction of withholding taxes for individuals will generally be impossible as it is very unlikely that the supporting documentation for the treaty relief can be provided to the tax authorities and approval from the latter obtained before any payments are made to individuals. A non-resident holder which is an individual may apply for treaty-based benefits and claim tax refund within three years following the end of the tax period in which the relevant income was received and the tax was withheld.

If a non-resident holder which is a legal entity or organization does not obtain double tax treaty relief at the time that income or gains are realized and tax is withheld by a Russian tax agent, the non-resident holder may apply for a refund within three years from the end of the tax period (a calendar year) in which the tax was withheld. To process a claim for a refund, the Russian tax authorities require (i) apostilled or legalized confirmation of the tax treaty residence of the non-resident at the time the income was paid, (ii) an application for the refund of the tax withheld in a format provided by the Russian tax authorities and (iii) copies of the relevant contracts under which the foreign entity received income, as well as payment documents confirming the payment of the tax withheld to the Russian budget (Form 1012DT for dividends and interest and Form 1011DT for other income are designed by the Russian tax authorities to combine requirements (i) and (ii) specified above). The Russian tax authorities may require a Russian translation of the above documents if they are prepared in a foreign language. The refund of the tax withheld should be granted within one month of the filing of the above set of documents with the Russian tax authorities. However, procedures for processing such claims have not been clearly established and there is significant uncertainty regarding the availability and timing of such refunds.

Recent amendments to the Russian Tax Code have established additional requirements to the reimbursement procedure referred to above, identifying further documents that need to be provided to the tax authorities. These include: 1) a document confirming the rights of the ADS holder to the ADS as of the date on which the shareholders entitled to the dividend payout are set according to the relevant decision of the General shareholders meeting, 2) a document evidencing the actual amount of income received by the ADS holder, 3) a document with information about the custodian that transferred the dividend amounts to the depository, and 4) documents confirming the ADS holder's compliance with the requirements of the Tax Code and/or the relevant income tax treaty provisions necessary for application of a reduced rate. The above requirements refer not only to ADS, but also to securities in general. In addition to the documents listed above, tax authorities may require more information and documents. Decision on refund is to be taken by the tax authorities within six months. The procedures referred to above are new and no assurance can be given that the custodian will be able to apply the respective double tax treaties when paying dividends to non-resident holders or that ADS holders would be successful in receiving relevant tax refunds.

Neither the depository nor us has or will have any obligation to assist an ADS holder with the completion and filing of any tax forms.

Certain United States Federal Income Tax Consequences

The following is a general description of certain material United States federal income tax consequences that apply to you if you are, for United States federal income tax purposes, a beneficial owner of ADSs that is an individual who is a citizen or resident of the United States, a corporation created or organized in or under the laws of the United States, any state thereof or the District of Columbia, an estate the income of which is subject to U.S. federal income tax regardless of its source, or a trust, if a United States court can exercise primary supervision over the administration of the trust and one or more United States persons can control all substantial trust decisions, or if the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a United States person (in each case, a "U.S. Holder"). This discussion is based on the Internal Revenue Code of 1986, as amended (the "Code"), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service ("IRS"), all as publicly available and in effect as of the date of this document. These authorities are subject to differing interpretations and may change, possibly retroactively, resulting in U.S. federal income tax consequences different from those discussed below. No ruling has been or will be sought from the IRS with respect to the matters discussed below, and there can be no assurance that the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of ADSs, or that any such contrary position would not be sustained by a court. If an entity or arrangement treated as a partnership for United States federal income tax purposes is an owner of ADSs, the United States federal income tax treatment of a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. Accordingly, entities or arrangements treated as partnerships for United States federal income tax purposes that hold ADSs and partners in such partnerships are urged to consult their tax advisors regarding the specific U.S. federal income tax consequences to them. The following discussion does not deal with the tax consequences to any particular investor or to persons in special tax situations such as:

- an insurance company;
- a tax-exempt organization;
- a financial institution;
- a person subject to the alternative minimum tax;
- a person who is a broker-dealer in securities or a trader subject to a mark-to-market election;

- a S corporation;
- a partnership, a pass-through entity or arrangement, a person holding ADSs through a partnership or other pass-through entity or arrangement;
- an expatriate subject to section 877 of the Code;
- a holder that is not a U.S. Holder;
- an investor that has a functional currency other than the U.S. dollar;
- a person subject to special tax accounting rules as a result of any item of gross income with respect to the shares or ADSs being taken into account in an applicable financial statement;
- a regulated investment company;
- a real estate investment trust;
- an owner of, directly, indirectly or by attribution, 10% or more of the outstanding shares of our stock (by vote or value); or
- an owner holding ADSs as part of a hedge, straddle, synthetic security or conversion transaction.

In addition, this summary is limited to U.S. Holders holding ADSs as “capital assets” within the meaning of Section 1221 of the Code and whose functional currency is the U.S. dollar. The discussion below does not address the effect of the Medicare tax on “net investment income” or of any United States state or local tax law or foreign tax law. This discussion also does not address any tax consequences relating to the direct ownership of ordinary shares.

The discussion below assumes that the representations contained in the deposit agreement are true and that the obligations in the deposit agreement and any related agreement will be complied with in accordance with their terms. For purposes of applying United States federal income tax law, we believe, and the following discussion assumes, that a holder of an ADS should be treated as the owner of the underlying shares of common stock represented by that ADS, although this matter is not free from doubt.

The U.S. Treasury has expressed concerns that intermediaries in the chain of ownership between the holder of an ADS and the issuer of the shares underlying the ADS may be taking actions that are inconsistent with the beneficial ownership of the underlying shares. Accordingly, the analysis of the creditability of Russian withholding taxes described below and the availability of the reduced tax rate for dividends received by certain non-corporate U.S. Holders (discussed below) could be affected by actions taken by intermediaries in the chain of ownership between the holder of ADSs and our company if as a result of such actions the holders of ADSs are not properly treated as beneficial owners of underlying shares and future actions that may be taken by the U.S. Treasury. The remainder of this discussion assumes that a holder of an ADS will be treated as the beneficial owner of the underlying shares of common stock represented by such ADS for United States federal income tax purposes.

Taxation of Distributions on ADSs

Subject to the passive foreign investment company rules described below, for United States federal income tax purposes, the gross amount of a distribution, including any Russian withholding taxes, paid by us with respect to ADSs will be treated as a taxable foreign source dividend on the date of actual or constructive receipt by the depository to the extent of our current and accumulated earnings and profits, computed in accordance with United States federal income tax principles. If you are a non-corporate U.S. Holder such dividends may be “qualified dividend income” that is taxed at the lower applicable capital gains rate provided that certain conditions are satisfied, including (1) certain holding period requirements are satisfied, (2) either (a) our ADSs continue to be listed on the New York Stock Exchange (are otherwise readily tradable on an established securities market in the United States) or (b) we are eligible for the benefits of the United States—Russia income tax treaty, and (3) we are not, for the taxable year in which the dividend was paid, or in the preceding taxable year, a “passive foreign investment company” (as discussed below). Distributions with respect to ADSs in excess of our current and accumulated earnings and profits will be applied against and will reduce your tax basis in such ADSs and, to the extent in excess of such tax basis, will be treated as gain from a sale or exchange of such ADSs. You should be aware that we do not intend to calculate our earnings and profits for United States federal income tax purposes and, unless we make such calculations, you should assume that any distributions with respect to ADSs generally will be treated as a dividend, even if such distributions would otherwise be treated as a return of capital or as capital gain pursuant to the rules described above. If you are a corporation, you will not be allowed a deduction for dividends received in respect of distributions on ADSs, which is generally available for dividends paid by U.S. corporations. U.S. Holders are strongly urged to consult their tax advisors as to the U.S. federal income tax treatment of any distribution received with respect to ADSs.

The amount of any distribution paid in rubles will equal the U.S. dollar value of such rubles, calculated using the exchange rate in effect on the date of actual or constructive receipt by the depository, regardless of whether the payment is actually converted into U.S. dollars. Generally, any gain or loss resulting from currency exchange rate fluctuations during the period from the date of receipt by the depository to the date the rubles are converted into U.S. dollars will be treated as ordinary income or loss from sources within the United States for foreign tax credit limitation purposes. Additionally, you may be required to recognize foreign currency gain or loss on the receipt of a refund of Russian withholding tax pursuant to the United States—Russia income tax treaty to the extent the United States dollar value of the refund differs from the dollar equivalent of that amount on the date of receipt of the underlying distribution.

Russian withholding tax at the rate applicable to you under the United States—Russia income tax treaty should be treated as a foreign income tax that, subject to generally applicable limitations and conditions, may be eligible for credit against your U.S. federal income tax liability or, at your election, may be deducted in computing taxable income. If Russian tax is withheld at a rate in excess of the rate applicable to you under the United States—Russia income tax treaty, you may not be entitled to U.S. foreign tax credits for the excess amount, even though the procedures for claiming refunds for such Russian taxes and the practical likelihood that refunds will be made available in a timely fashion are uncertain (as described under “Certain Russian Tax Consequences”). If the dividends are qualified dividend income (as discussed above), the amount of the dividend taken into account for purposes of calculating the foreign tax credit limitation will generally be limited to the gross amount of the dividend, multiplied by the reduced rate divided by the highest rate of tax normally applicable to dividends.

The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For United States foreign tax credit purposes, a dividend distribution with respect to the ADSs will be treated as foreign source “passive category income.” The rules relating to the determination of the foreign tax credit, or deduction in lieu of the foreign tax credit, are complex and you should consult your tax advisors with respect to those rules.

Taxation on Sale or Other Taxable Disposition of ADSs

Subject to the passive foreign investment company rules described below, the sale or other taxable disposition of ADSs will generally result in the recognition of gain or loss in an amount equal to the difference between the amount realized on the sale or other taxable disposition and your adjusted basis in such ADSs. That gain or loss will be capital gain or loss and will be long-term capital gain or loss if you have held the ADSs for more than one year. If you are a non-corporate U.S. Holder, such recognized long-term capital gain is generally subject to a reduced rate of United States federal income tax. Limitations may apply to your ability to offset capital losses against ordinary income.

Gain or loss recognized on the sale of ADSs will generally be treated as U.S. source income or loss for foreign tax credit purposes. The use of any foreign tax credits relating to any Russian taxes imposed upon such sale may be limited. You are strongly urged to consult your tax advisors as to the availability of tax credits for any Russian taxes withheld on the sale of ADSs.

Passive Foreign Investment Company Considerations

A non-U.S. corporation generally will be a passive foreign investment company (a “PFIC”), in any taxable year in which, after taking into account the income and assets of the corporation and certain subsidiaries pursuant to applicable “look-through” rules, either (i) at least 75% of its gross income is “passive income” or (ii) at least 50% of the average value of its total assets is attributable to assets which produce passive income or are held for the production of passive income.

We do not believe that we were a PFIC for the year ended December 31, 2019. However, our possible status as a PFIC must be determined annually and requires a factual determination that depends on, among other things, the nature and composition of our income, assets and activities for the entire taxable year. Moreover, the value of our total assets for PFIC purposes is generally determined based on the market price of our ADSs, which is subject to potentially significant fluctuation. Therefore, our possible status as a PFIC may be subject to change. Thus there can be no assurance that we will not be treated as a PFIC in our current taxable year or in the future. If we were to be treated as a PFIC, U.S. Holders generally would be required to pay additional taxes on certain distributions and gains on sales or other dispositions (including pledges) of the ADSs, at tax rates that may be higher than those otherwise applicable. You should consult your tax advisors regarding the application of the PFIC rules to your investment in the ADSs.

Information Reporting and Backup Withholding

Dividend payments with respect to ADSs and proceeds from the sale or exchange of ADSs may be subject to information reporting to the IRS and possible U.S. backup withholding. Backup withholding will not apply, however, to a U.S. Holder who furnishes a correct taxpayer identification number and makes any other required certification or who is otherwise exempt from backup withholding. U.S. Holders who are required to establish their exempt status generally must provide such certification on IRS Form W-9. U.S. Holders should consult their tax advisors regarding the application of the U.S. information reporting and backup withholding rules.

Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against your U.S. federal income tax liability, and you may obtain a refund of any excess amounts withheld under the backup withholding rules by timely filing the appropriate claim for refund with the IRS and furnishing any required information.

Additional Reporting Requirements

Certain U.S. Holders who are individuals and certain specified non-individual holders may be required to report information relating to an interest in the ADSs, subject to certain exceptions (including an exception for ADSs held in accounts maintained by certain financial institutions). U.S. Holders should consult their tax advisors regarding the effect, if any, of this requirement on their ownership and disposition of the ADSs.

E. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

The documents that are exhibits to or incorporated by reference in this document can be read at the U.S. Securities and Exchange Commission's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330 or, from outside the United States, at 1-202-942-8090. Copies may also be obtained from the SEC website at www.sec.gov. Our electronic filings are available at the SEC website www.sec.gov. Information about MTS is also available on the Internet at www.ir.mts.ru. Information included in our website does not form part of this document.

I. Subsidiary Information

Not applicable.

Item 11. *Quantitative and Qualitative Disclosures about Market Risk*

We are exposed to market risk from changes in interest rates and foreign currency exchange rates. We are subject to market risk deriving from changes in interest rates, which may affect the cost of our financing. Foreign exchange risks exist to the extent our revenues, costs and debt obligations are denominated in currencies other than the functional currency in the countries of our operations.

Interest Rate Risk

We are exposed to variability in cash flow primarily related to our variable interest rate debt and exposed to fair value risk related to our fixed rate notes. As of December 31, 2019, RUB 24,580 million, or 7.16% of our total indebtedness, excluding capital leases, was variable interest rate debt, while RUB 318,739 million, or 92.84% of our total indebtedness, excluding capital leases, was fixed interest rate debt.

The table below presents principal cash flows and related weighted average interest rates for indebtedness by contractual maturity dates as of December 31, 2019.

Contractual Maturity Date as of December 31, 2019:

Indebtedness	Currency	2020	2021	2022	2023	2024	Thereafter	Total	Annual interest rate (Actual interest rate at December 31, 2019)
(amounts in millions of RUB)									
Variable debt									
VTB	RUB	—	—	—	—	25,000	—	25,000	6.75%
ZTV	RUB	—	—	688	—	—	—	688	6.25%
Total variable debt		—	—	688	—	25,000	—	25,688	
Weighted average interest rate		6.74%	6.74%	6.74%	6.75%	6.75%	0.00%	5.62%	
Fixed-rate notes									
MTS International Notes due 2020	USD	18,627	—	—	—	—	—	18,627	8.63%
MTS PJSC Notes due 2020 .	RUB	40	—	—	—	—	—	40	7.90%
MTS International Notes due 2023	USD	—	—	—	27,755	—	—	27,755	5.00%
MTS PJSC Notes due 2022 (V series)	RUB	—	12	—	—	—	—	12	0.25%
MTS PJSC Notes due 2023 .	RUB	9,352	—	—	—	—	—	9,352	6.85%
MTS PJSC Notes due 2031 .	RUB	—	891	—	—	—	—	891	7.50%
MTS PJSC Notes due 2022 .	RUB	—	—	10,000	—	—	—	10,000	9.00%
MTS PJSC Notes due 2021 .	RUB	—	10,000	—	—	—	—	10,000	8.85%
MTS PJSC Notes due 2022 .	RUB	—	—	15,000	—	—	—	15,000	7.70%
MTS PJSC Notes due 2021 .	RUB	—	10,000	—	—	—	—	10,000	7.10%
MTS PJSC Notes due 2025 .	RUB	—	—	—	—	—	10,000	10,000	7.25%
MTS PJSC Notes due 2024 .	RUB	—	—	—	—	10,000	—	10,000	8.70%
MTS PJSC Notes due 2022 .	RUB	—	—	5,000	—	—	—	5,000	8.40%
MTS PJSC Notes due 2024 .	RUB	—	—	—	—	7,500	—	7,500	8.60%
MTS PJSC Notes due 2025 .	RUB	—	—	—	—	—	15,000	15,000	8.00%
MTS PJSC Notes due 2026 .	RUB	—	—	—	—	—	10,000	10,000	7.90%
MTS PJSC Notes due 2023 .	RUB	—	—	—	15,000	—	—	15,000	6.85%
MTS PJSC Notes due 2022 .	RUB	—	—	10,000	—	—	—	10,000	6.45%
Fixed-rate bank loans									
Sberbank	RUB	35,000	—	—	—	—	—	35,000	7.50%
Sberbank	RUB	—	—	—	—	70,000	—	70,000	7.91%
Ekvant	RUB	37	36	35	37	28	—	173	0.00%
Maind Kraft	RUB	4	4	—	—	—	—	8	8.33%
SPB	RUB	3,000	—	—	—	—	—	3,000	6.50%
RSHB	RUB	5,000	—	—	—	—	—	5,000	6.40%
VTB	RUB	—	20,000	—	—	—	—	20,000	7.20%
Cisco	RUB	324	350	186	—	—	—	860	7.91%
Cisco	RUB	203	218	115	—	—	—	536	7.15%
Cisco	RUB	115	124	133	—	—	—	372	7.01%
Cisco	RUB	318	341	364	—	—	—	1,023	6.65%
Total fixed debt		72,020	41,976	40,833	42,792	87,528	35,000	320,149	
Weighted average interest rate		7.50%	7.47%	7.45%	7.37%	7.97%	7.76%	7.59%	

We would have experienced an additional interest expense of approximately RUB 271 million on an annual basis as a result of a hypothetical increase in variable rates by 1% over the current rate as of December 31, 2019. The rates of EUR and USD as of December 31, 2019 were used in calculations.

The fair value of our publicly traded fixed-rate notes as of December 31, 2019, ranged from 99.84% to 109.22% of the notional amount. As of December 31, 2019, the difference between the carrying value and the fair value of other fixed rate debt, including lease obligations, was immaterial. For details of our fixed-rate debt, refer to Note 23 of our audited consolidated financial statements. The fair value of variable rate debt approximates its carrying value.

We use derivative financial instruments to eliminate the exposure of changes in value of debt obligations. We primarily focus on reducing risk caused by the fluctuations in value for our fixed-rate long-term debt. According to our policy, we have entered into various fixed-to-variable interest rate swap agreements. The table below presents a summary of our fixed-to-variable interest rate swap agreements.

Type of derivative	Maturity	Notional amount (at inception)	Mark to Market Value as of December 31, 2019
		(amounts in millions of Rubles)	(amounts in millions of Rubles)
Fixed-to-variable Interest Rate Swap Agreements			
Swap agreement with Sberbank to pay a variable interest rate of 3m LIBOR and receive a fixed interest rate of 8.45	March 2020	7,000	(0.5)
Swap agreement with Merrill Lynch to pay a variable interest rate of 3m LIBOR and receive a fixed interest rate of 8.45%	March 2020	3,000	(0.2)

As of December 31, 2019, approximately 5.8% of our fixed interest rate debt was hedged against risks of changes in value of the debt. We continue to consider other financial instruments available to us to mitigate exposure to debts' value fluctuations.

We also use derivative financial instruments to reduce our exposure to adverse fluctuations in interest rates. We primarily focus on reducing risk caused by the fluctuations in interest rates for our variable-rate long-term debt. According to our policy, we have entered into several cross-currency interest rate swap agreements. Most of these contracts, which hedge the risk of both interest rate and currency fluctuations, assume periodical exchanges of interest payments or both principal and interest payments from ruble-denominated amounts to U.S. dollar-denominated amounts, to be exchanged at specified rates. The rates were determined with reference to the market spot rates upon issuance. These contracts also include an interest rate swap of a variable U.S. dollar-denominated interest rate to a fixed ruble-denominated interest rate. All of our cross-currency interest rate swaps agreements mature in 2023 and 2024.

The table below presents a summary of our cross-currency interest rate swap agreements:

Type of derivative	Maturity	Notional amount (at inception)	Mark to Market Value as of December 31, 2019
		(amounts in millions of Rubles)	(amounts in millions of Rubles)
Cross-currency Interest Rate Swap Agreements			
Swap agreements with Sberbank to pay a fixed rates of 8.29% to 8.3125% and receive a variable interest rate of 6m LIBOR	June 2024	4,410	38
Swap agreements with Rosbank to pay a fixed rates of 7.924% to 8.2965% and receive a variable interest rate of 6m LIBOR	June 2024	8,499	280
Swap agreements with VTB bank to pay a variable Central Bank key rate (not less than 7%) + (-0.02%) - 0.575% and receive a fixed interest rate of 5%	May 2023	20,841	(955)

Foreign Currency Risk

The following tables show, for the periods indicated, certain information regarding the exchange rate between the ruble and the U.S. dollar, based on data published by the CBR. These rates may differ from the actual rates used in preparation of our financial statements and other financial information provided herein.

Years ended December 31,	Rubles per U.S. dollar			
	High	Low	Average ⁽¹⁾	Period End
2015	72.88	49.18	62.01	72.88
2016	83.59	60.27	66.35	60.66
2017	60.75	55.85	58.10	57.60
2018	69.97	55.67	62.71	69.47
2019	69.47	61.72	64.74	61.91

(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
July 2019	63.87	62.81
August 2019	66.78	63.42
September 2019	66.91	63.71
October 2019	65.44	63.63
November 2019	64.21	63.25
December 2019	64.41	61.72
January 2020	63.04	60.95
February 2020	66.99	62.80
March 2020	80.88	66.08

Source: CBR.

The exchange rate between the ruble and the U.S. dollar quoted by the CBR for April 23, 2020 was 77.04 rubles per U.S. dollar.

We have exposure to fluctuations in the value of the U.S. dollar relative to the Russian ruble, Turkmen manat and Armenian dram which are the functional currencies in our countries of operation. As a result, we may face translation losses, increased debt service payments and increased capital expenditures and operating costs should these currencies depreciate against the U.S. dollar.

A significant part of our capital expenditures, borrowings and certain operating costs (roaming expenses, cost of customer equipment and other costs) are either denominated in U.S. dollars or tightly linked to the U.S. dollar exchange rate, and our U.S. dollar-denominated debt represents our primary future risk of exchange loss in U.S. dollar terms. A decline in the value of the ruble, manat, dram or sum versus the U.S. dollar would result in currency remeasurement losses as the amount of these currencies required to repay U.S. dollar-denominated debt increases. In addition, if any of the ruble, manat or dram declines against the U.S. dollar and tariffs cannot be maintained for competitive or other reasons, our revenues and operating margins could be materially adversely affected and we could have difficulty repaying or refinancing our U.S. dollar-denominated indebtedness and financing our capital expenditures and operating costs.

A portion of our capital expenditures, borrowings and certain operating costs (roaming expenses, costs of customer equipment and other costs) are also denominated in euros. We currently do not hedge against the risk of decline in the ruble, manat, dram or sum against the euro because settlements denominated in euros are not significant.

We would experience a currency exchange gain of RUB 15,100 million on our U.S. dollar-denominated net monetary assets as a result of a hypothetical 30.0% increase in the ruble/manat/dram/sum to U.S. dollar exchange rate at December 31, 2019. We would experience a currency exchange gain of RUB 3,790 million in the fair value of our euro-denominated net monetary assets as a result of a hypothetical 30.0% increase in the ruble/manat/dram to euro exchange rate at December 31, 2019. We are unable to estimate future loss of earnings as a result of such changes.

Item 12. Description of Securities Other Than Equity Securities

(Only Items 12.D.3-4 are applicable.)

D. American Depositary Shares

3. Fees and charges that a holder of American Depositary Receipts may have to pay, either directly or indirectly.

<u>Category</u>	<u>Depositary Actions</u>	<u>Associated Fee</u>
(a) Depositing or substituting the underlying shares	Each person to whom ADSs are issued, including, without limitation, issuances against deposits of shares, issuances in respect of share distributions, rights and other distributions, issuances pursuant to a stock split declared by the Company, or issuances pursuant to a merger, exchange of securities or any other transaction or event affecting the ADSs or the deposited securities	\$5.00 for each 100 ADSs (or portion thereof)
(b) Receiving or distributing dividends	Distribution of stock dividends Distribution of cash	\$5.00 for each 100 ADSs (or portion thereof) \$0.02 or less per ADS (or portion thereof)
(c) Selling or exercising rights	Distribution or sale of securities, the fee being in an amount equal to the fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such securities	\$5.00 for each 100 ADSs (or portion thereof)
(d) Withdrawing an underlying security	Acceptance of ADRs surrendered for withdrawal of deposited securities or cancellation or reduction of ADSs for any other reason	\$5.00 for each 100 ADSs (or portion thereof)

<u>Category</u>	<u>Depository Actions</u>	<u>Associated Fee</u>
(e) Transferring, splitting or grouping receipts	Transfers, combining or grouping of depository receipts	\$1.50 per ADS
(f) General depository services, particularly those charged on an annual basis	Other services performed by the depository in administering the ADRs	\$0.02 per ADS (or portion thereof) per calendar year which may be charged on a periodic basis during each calendar year and shall be assessed against holders of ADSs as of the record date or record dates set by the depository during each calendar year and shall be payable at the sole discretion of the depository by billing such holders or by deducting such charge from one or more cash dividends or other cash distributions
	Custodian and share register related issues, including, without limitation, any inspections of the share register maintained by the Russian share registrar or other confirmation of holdings of deposited securities	\$0.01 or less per ADS (or portion thereof) per year which fee shall be assessed against holders of record as of the date set by the depository not more often than once each calendar year
(g) Expenses of the depository	Certain fees and expenses incurred by the depository bank and certain taxes and governmental charges in connection with: <ul style="list-style-type: none"> • compliance with foreign exchange control regulations or any law or regulation relating to foreign investment; • depository or its custodian's compliance with applicable law, rule or regulation; • stock transfer or other taxes and other governmental charges; • cable, telex, facsimile transmission or delivery charges; 	Charges to be assessed against holders as of the record date or dates set by the depository and payable at the sole discretion of the depository by billing such holders or by deducting such charge from one or more cash dividends or other cash distributions

Category

Depository Actions

Associated Fee

- if applicable, transfer or registration fees for the registration or transfer of deposited securities on any applicable register in connection with the deposit or withdrawal of deposited securities (which are payable by persons depositing shares or holders withdrawing deposited securities);
- expenses of the depository in connection with the conversion of foreign currency into U.S. dollars (which are paid out of such foreign currency);
- any other charge payable by depository or its agents including, without limitation, the custodian, or the agents of the depository's agents in connection with the servicing of the shares or other deposited securities

4. All fees and other direct and indirect payments made by the depository to the foreign issuer of the deposited securities.

The Depository has agreed to reimburse to us or pay on our behalf certain reasonable expenses related to our ADS program and incurred by us in connection with the program (such as NYSE listing fees, legal and accounting fees incurred with preparation of Form 20-F and ongoing SEC compliance and listing requirements, investor relations expenses, among others). The amounts the Depository reimbursed or paid are not perforce related to the fees collected by the depository from ADS holders.

As part of its service to us, the Depository has agreed to waive fees for the standard costs associated with the administration of our ADS program, associated operating expenses and investor relations advice estimated to total \$0.2 million.

PART II

Item 13. *Defaults, Dividend Arrearages and Delinquencies*

None.

Item 14. *Material Modifications to the Rights of Security Holders and Use of Proceeds*

None.

Item 15. *Controls and Procedures*

(a) *Disclosure Controls and Procedures.*

As of the end of the period covered by this Annual Report on Form 20- F, we carried out an evaluation, under the supervision and with the participation of our management, including our CEO and CFO, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934).

Based on this evaluation, our CEO and CFO concluded that our disclosure controls and procedures are effective, as of December 31, 2019, to provide reasonable assurance that the information required to be disclosed in filings and submissions under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified by the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions about required disclosure.

There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

(b) *Management's annual report on internal control over financial reporting.*

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control system was designed to provide reasonable assurance to our management and board of directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Internal control over financial reporting refers to a process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer and effected by our Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable details accurately and fairly reflect the transactions and dispositions of our assets;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board, and that our receipts and expenditures are being made only in accordance with authorizations of our management and members of our board of directors;
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

Management evaluated the effectiveness of our internal control over financial reporting as of December 31, 2019 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO, in *Internal Control—Integrated Framework (2013)*.

As a result of management’s evaluation of our internal control over financial reporting, management concludes that internal control over financial reporting as of December 31, 2019 was effective.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited and assessed as effective by independent registered public accounting firm Deloitte & Touche CIS, who has also audited and reported on our consolidated financial statements.

There were no changes in our internal control over financial reporting during the year ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect our internal control over financial reporting.

(c) *Attestation Report of Independent Registered Public Accounting Firm.*

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Mobile TeleSystems PJSC

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Mobile TeleSystems PJSC and subsidiaries (the “Group”) as of December 31, 2019, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Group maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the criteria established in *Internal Control—Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Group and our report dated March 12, 2020 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Group’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Group’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ AO Deloitte & Touche CIS
Moscow, Russia
March 12, 2020

(d) *Changes in internal control over financial reporting.*

Management has evaluated, with the participation of our CEO and CFO, whether any changes in our internal control over financial reporting that occurred during the period covered by this annual report have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on the evaluation we conducted, management has concluded that no such changes have occurred.

Item 16A. *Audit Committee Financial Expert*

Our Board of Directors has determined that Thomas Holtrop is an "audit committee financial expert" as defined in Item 16A of Form 20-F. Mr. Holtrop is "independent" as defined in Rule 10A-3 under the Exchange Act and current New York Stock Exchange listing rules applicable to us. For a description of Mr. Holtrop's experience, please see "Item 6. Directors, Senior Management and Employees—A. Directors and Senior Management—Key Biographies."

Item 16B. *Code of Ethics*

The current version of our Code of Ethics was adopted on October 19, 2018. Our Code of Ethics applies to all of our officers, directors and employees. The new Code of Ethics did not substantively alter any of its requirements as compared with the code of ethics that was in effect prior to the approval of the new Code of Ethics.

A copy of our Code of Ethics is available on our website at <http://ir.mts.ru/>.

Item 16C. Principal Accountant Fees and Services

AO Deloitte & Touche CIS has served as our Independent Registered Public Accounting Firm for each of the fiscal years in the two year period ended December 31, 2019 and 2018 for which audited financial statements appear in this Annual Report on Form 20 F. The following table presents the aggregate fees billed for professional services and other services by AO Deloitte & Touche CIS and its affiliates in 2019 and 2018, respectively.

	Year ended December 31,	
	2019	2018
	(in thousands of Russian rubles)	
Audit Fees	160,442	165,011
Audit-Related Fees	1,460	4,093
Tax Fees	—	308
All Other Fees	9,518	1,690
Total	171,420	171,102

Audit Fees

The Audit Fees for the years ended December 31, 2019 and 2018 were for the reviews and integrated audits of our consolidated financial statements prepared in accordance with IFRS and reviews and audits of the financial statements of our public subsidiaries prepared in accordance with IFRS and statutory audits.

Audit-Related Fees

The Audit Related Fees for the years ended December 31, 2019 and 2018 include agreed-upon procedures engagement. In the year ended December 31, 2018 the fees also include procedures to support investigations related to our former subsidiary in Uzbekistan.

Tax Fees

The Tax Fees for the years ended December 31, 2018 include the fees principally related to tax compliance services.

All Other Fees

All Other Fees for the years ended December 31, 2019 and 2018 include agreed-upon procedures engagement on non-financial information. In the year ended December 31, 2019 the fees also include quality assessment services.

Audit Committee Pre-Approval Policies and Procedures

The Sarbanes Oxley Act of 2002 required us to implement a pre-approval process for all engagements with our independent public accountants. In compliance with Sarbanes Oxley requirements pertaining to auditor independence, our Audit Committee pre-approves the engagement terms and fees of AO Deloitte & Touche CIS and its affiliates for all audit and non audit services, including tax services. Our Audit Committee pre-approved the engagement terms and fees of AO Deloitte & Touche CIS and its affiliates for all services performed for the fiscal year ended December 31, 2019. No services of any kind were approved pursuant to a waiver permitted pursuant to 17 CFR 210.2-01(c)(7)(C)(1).

Item 16D. *Exemption from the Listing Standards for Audit Committees*

Not Applicable.

Item 16E. *Purchases of Equity Securities by the Issuer and Affiliated Purchasers*

We did not repurchase any ADSs in the years ended December 31, 2014 and December 31, 2015.

A total of 9,935 MTS ordinary shares representing 0.0005% of our issued share capital were repurchased for RUB 2.1 million in August 2014 pursuant to our shareholders' right to demand buy-out following our decision on merger of our subsidiaries into MTS in accordance with applicable laws. These shares were sold pursuant to the requirements of applicable legislation in August 2015.

A total of 29,666 MTS shares representing 0.001% of our issued share capital were repurchased for RUB 5.9 million in October 2015 pursuant to our shareholders' right to demand buy-out following our decision on merger of our subsidiaries into MTS in accordance with applicable laws. These shares were used for reduction of our issued share capital in August 2016.

A total of 6,986 MTS shares representing 0.0003% of our issued share capital were repurchased for RUB 1.1 million in February 2016 pursuant to our shareholders' right to demand buy-out following our decision on merger of our subsidiaries into MTS in accordance with applicable laws. These shares were used for reduction of our issued share capital in August 2016.

In October 2016, we announced a tender offer (the "First Tender Offer") for repurchase of MTS ordinary shares (including ordinary shares represented by ADSs) for the amount of up to RUB 4,934 million. Also, our subsidiary Stream Digital LLC and Sistema entered into a purchase agreement (the "Sistema Purchase Agreement") pursuant to which Sistema agreed not to tender and sell any shares in the First Tender Offer and instead agreed to sell to us, following completion of the First Tender Offer, a pro rata number of shares of ordinary shares based on the number of shares tendered in the First Tender Offer. As a result of the First Tender Offer in December 2016 our subsidiary, Stream Digital LLC, repurchased 1,509,914 MTS ordinary shares (including ordinary shares represented by ADSs) representing approximately 0.08% of our issued share capital for RUB 346 million. Simultaneously, Stream Digital LLC repurchased 1,550,495 MTS ordinary shares from Sistema under the Sistema Purchase Agreement representing approximately 0.08% of our issued share capital for RUB 355 million.

In January 2017, we announced another tender offer (the "Second Tender Offer") for repurchase of MTS ordinary shares (including ordinary shares represented by ADSs) for the amount of up to RUB 4,647 million. Also, our subsidiary Stream Digital LLC and Sistema Finance S.A., a subsidiary of Sistema, entered into a purchase agreement (the "Second Sistema Purchase Agreement") pursuant to which Sistema Finance S.A. together with Sistema and Sistema's affiliated entities agreed not to tender and sell any shares in the Second Tender Offer and instead agreed to sell to us, following completion of the Second Tender Offer, a pro rata number of shares of ordinary shares based on the number of shares purchased in the Second Tender Offer.

As a result of the Second Tender Offer in March 2017 Stream Digital LLC, repurchased 16,022,364 MTS ordinary shares (including ordinary shares represented by ADSs) representing approximately 0.8% of our issued share capital for RUB 4,646 million.

Simultaneously, Stream Digital LLC repurchased 16,038,892 MTS ordinary shares from Sistema Finance S.A. under the Second Sistema Purchase Agreement representing approximately 0.8% of our issued share capital for RUB 4,651 million.

In September 2017, we launched a share repurchase plan for repurchase of MTS ordinary shares (including ordinary shares represented by ADSs) for an amount up to RUB 20 billion under Rule 10b5-1 and Rule 10b-18 of the Exchange Act (the “Repurchase Plan”). Also, we entered into a sale and repurchase agreement with Sistema Finance S.A., a subsidiary of Sistema, to acquire any number of shares proportional to any shares acquired from the market under the Repurchase Plan. The Repurchase Plan is carried out by our subsidiary Stream Digital LLC.

As a result of the Repurchase Plan by the end of 2017 Stream Digital LLC repurchased 43,647,128 MTS ordinary shares (including ordinary shares represented by ADSs) representing approximately 2.2% of our issued share capital for RUB 12,475 million.

During the first quarter of 2018 Stream Digital LLC repurchased 25,397,204 MTS ordinary shares (including ordinary shares represented by ADSs) representing approximately 1.3% of our issued share capital for RUB 7,354 million.

In March 2018, our wholly owned subsidiary Bastion LLC repurchased 1,400,000 MTS ordinary shares representing approximately 0.07% of our issued share capital in order to accomplish MTS management long-term motivation program.

In July 2018, we launched a share repurchase plan for repurchase of MTS ordinary shares (including ordinary shares represented by ADSs) for an amount up to RUB 30 billion under Rule 10b5 1 and Rule 10b 18 of the Exchange Act (the “Repurchase Plan”). Also, we entered into a sale and repurchase agreement with Sistema Finance S.A., a subsidiary of Sistema, to acquire any number of shares proportional to any shares acquired from the market under the Repurchase Plan. The Repurchase Plan is carried out by our subsidiary Bastion LLC.

As a result of Repurchase Plans by the end of 2018 Stream Digital LLC and Bastion LLC repurchased 81,251,382 MTS ordinary shares (including ordinary shares represented by ADSs) representing approximately 4.1% of our issued share capital for RUB 22,148 million.

In 2019, Bastion LLC repurchased 57,719,394 MTS ordinary shares (including ordinary shares represented by ADSs) representing approximately 2.89% of our issued share capital:

<u>Month</u>	<u>Shares repurchased</u>
January	5,827,864
February	15,914,701
March	18,327,119
April	13,420,095
May	4,143,445
August	86,170
Total	57,719,394

At the meeting held on April 6, 2020 the Board of Directors approved the report concerning shares submitted for repurchase in connection with the Extraordinary General Meeting of shareholders (the “EGM”) earlier held on February 14, 2020.

Owners of MTS ordinary shares voting at the EGM against issues related to the consolidation of certain subsidiaries or those who abstained from voting were eligible to submit their shares for repurchase at a designated price of RUB 277.07 per ordinary share, based on the weighted average trading price over the six months prior to December 19.

In total, 387,683 ordinary shares were submitted that met the eligibility criteria, equivalent to RUB 107,415,328.81.

See also “Item 7. Major Shareholders and Related Party Transactions—A. Major Shareholders.”

Item 16F. *Change in Registrant's Certifying Accountant*

Not applicable.

Item 16G. *Corporate Governance*

We are a company organized under the laws of the Russian Federation and qualify as a foreign private issuer as such term is defined in Rule 3b-4 of the Exchange Act. In accordance with the NYSE corporate governance rules, listed companies that are foreign private issuers are permitted in some circumstances to follow home country practice in lieu of the provisions of the corporate governance rules contained in Section 303A of the NYSE Listed Company Manual that are applicable to U.S. companies. In addition, foreign private issuers listed on the NYSE must disclose any significant ways in which their corporate governance practices differ from those followed by U.S. companies listed on the NYSE. With regard to our corporate governance practices, these differences can be summarized as follows:

- For U.S. companies, the NYSE standards require that a majority of directors be independent, as determined by the board. Russian law does not require that a majority of our directors be independent. Of our nine directors, four have been determined by the board to be independent in accordance with the independence standards set forth in SEC Rule 10A-3 and Section 303A.02 of the NYSE Listed Company Manual.
- For U.S. companies, the NYSE standards require that the audit committee have a minimum of three members. Russian law does not contain such a requirement. Our audit committee comprises of three members.
- For U.S. companies, the NYSE standards require that non-management directors meet at regularly scheduled executive sessions without management. Russian law does not contain such a requirement. However, our audit committee and remuneration and nomination committee comprises of independent directors, who meet on a regular basis in connection with their work on these committees.
- For U.S. companies, the NYSE standards require that listed companies have a nominating/corporate governance committee and a compensation committee, each composed entirely of independent directors and having a written charter specifying the committee's purpose and responsibilities, as well as annual performance evaluations of the committee.

We have a corporate governance committee comprising of directors and members of management that is responsible for developing and implementing standards for corporate governance and making recommendations to the Board of Directors on developing our strategy in the area of corporate governance.

We have a remuneration and nomination committee comprising of four independent directors. This committee functions pursuant to bylaws approved by the Board of Directors specifying the committee's purpose, duties and responsibilities. The committee is primarily responsible for recommending appointments to key managerial posts, developing a set of requirements and criteria for directors and management executives and developing a remuneration structure and compensation levels for the Board of Directors, the audit committee and management executives (including the CEO). This committee is also responsible for conducting annual performance evaluations of the Board of Directors.

- For U.S. companies, the NYSE standards require that shareholders be given the opportunity to vote on all equity compensation plans and material revisions. Under Russian law, such approval from shareholders is not required, and our equity compensation plans and material revisions thereto are currently approved by the Board of Directors.

- For U.S. companies, the NYSE standards require the adoption and disclosure of corporate governance guidelines addressing certain subjects. Our corporate governance guidelines are consistent with what is required under Russian law and are set forth in our Charter, in the bylaw on our Board of Directors and in the bylaws of our various committees.

We may in the future decide to use other foreign private issuer exemptions with respect to some or all of the other New York Stock listing rules. Following our home country governance practices may provide less protection than is accorded to investors under the New York Stock Exchange listing rules applicable to domestic issuers. We are required under the New York Stock Exchange listing rules to disclose any significant differences between the corporate governance practices that we follow under Russian law and applicable listing standards and those followed by U.S. domestic companies under New York Stock Exchange listing standards. This disclosure is posted on our website (<http://ir.mts.ru/about-mts/corporate-governance/default.aspx>).

PART III

Item 17. *Financial Statements*

See instead Item 18.

Item 18. *Financial Statements*

The following financial statements, together with the report of AO Deloitte & Touche CIS, are filed as part of this annual report on Form 20-F.

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Item 19. Exhibits

<u>Exhibits No.</u>	<u>Description</u>
1.1	Charter of Mobile TeleSystems PJSC, restated version No. 14, as approved by the General Meeting of Shareholders of Mobile TeleSystems PJSC held on June 28, 2018 (English translation) is incorporated herein by reference to Exhibit 1.1 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20 F.*
1.2	Amendments and Additions to the Charter of Mobile TeleSystems PJSC (Version No. 14), as approved by Extraordinary Meeting of Shareholders of Mobile TeleSystems PJSC held on February 14, 2020 (English translation).
1.3	Amendments and Additions to the Charter of Mobile TeleSystems PJSC (Version No. 14), as approved by Extraordinary Meeting of Shareholders of Mobile TeleSystems PJSC held on February 14, 2020 (English translation).
1.4	Code of Corporate Conduct and Business Ethics of Mobile TeleSystems PJSC approved by the Board of Directors of Mobile TeleSystems PJSC on September 21, 2018 (English translation) is incorporated herein by reference to Exhibit 1.4 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20 F.
2.1	Deposit Agreement, dated as of July 6, 2000, by and among, MTS, Morgan Guaranty Trust Company of New York (as depository), and holders of ADRs is incorporated herein by reference to Exhibit 2.1 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2000, on Form 20-F.
2.2	Amendment No. 1 to Deposit Agreement is incorporated herein by reference to Exhibit (a)(2) to Form F-6 (Registration No 333-12008).
2.3	Amendment No. 2 to Deposit Agreement is incorporated herein by reference to Exhibit (a)(3) to Form F-6 (Registration No 333-121240).
2.4	Amendment No. 3 to Deposit Agreement is incorporated herein by reference to Exhibit (a)(4) to Form F-6 (333-145190).
2.5	Amendment No. 4 to Deposit Agreement is incorporated herein by reference to Exhibit (a)(5) to Form F-6 (Registration No. 333-166178).
2.6	Amendment No. 5 to Deposit Agreement is incorporated herein by reference to Exhibit (a)(6) to Form F-6 (Registration No. 333-166178).
2.7	Listing Prospectus of Mobile TeleSystems PJSC relating to exchange-traded interest-bearing non-convertible documentary bonds dated March 5, 2013 (English translation) is incorporated herein by reference to Exhibit 2.6 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
2.8	Listing Prospectus of Mobile TeleSystems PJSC relating to exchange-traded interest-bearing non-convertible documentary bonds dated July 27, 2016 (English translation).
2.9	Modifications to the Listing Prospectus of Mobile TeleSystems PJSC relating to exchange-traded interest-bearing non-convertible documentary bonds dated August 17, 2018 (English translation).

Exhibits No.	Description
2.10	Description of the Registrant's Securities registered pursuant to Section of the Securities Exchange Act of 1934, as amended.
4.1	Loan Agreement, dated June 21, 2010 between MTS and MTS International Funding Limited is incorporated herein by reference to Exhibit 4.3 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2009, on Form 20-F.
4.2	Loan Agreement, dated May 28, 2013 between MTS and MTS International Funding Limited.
4.3	MTS License No. 86435 for provision of mobile radiotelephone communication services in the 900 MHz band in the territory of the Ulyanovsk Region (English translation) is incorporated herein by reference to Exhibit 4.30 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2010, on Form 20-F.
4.4	MTS License No. 86436 for provision of mobile radiotelephone communication services in the 900 MHz band in the territory of the Penza Region (English translation) is incorporated herein by reference to Exhibit 4.29 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2010, on Form 20-F.
4.5	MTS License No. 101245 for provision of data communication services for the purposes of voice data communication in the territory of the Russian Federation (English translation) is incorporated herein by reference to Exhibit 4.326 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.6	MTS License No. 101246 for provision of telematic communication services in the territory of the Russian Federation (English translation) is incorporated herein by reference to Exhibit 4.256 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.7	MTS License No. 101247 for provision of mobile radio telephone communication services in the territory of the Asian Russia (English translation) is incorporated herein by reference to Exhibit 4.257 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.8	MTS License No. 101248 for provision of data communication services excluding data communication services for the purposes of voice data communication in the territory of the Russian Federation (English translation) is incorporated herein by reference to Exhibit 4.258 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.9	MTS License No. 127169 for provision of telematic communication services in the territory of the Khabarovsk Territory (English translation) is incorporated herein by reference to Exhibit 4.288 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.10	MTS License No. 127170 for provision of local telephone communication services, excluding local telephone communication services using coin-box telephones and public access services in the territory of the Zabaikalye Territory (English translation) is incorporated herein by reference to Exhibit 4.289 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.11	MTS License No. 127171 for provision of communications services for the provision of communication channels in the territory of the Primorye Territory (English translation) is incorporated herein by reference to Exhibit 4.280 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.12	MTS License No. 127172 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Khabarovsk Territory (English translation) is incorporated herein by reference to Exhibit 4.283 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.13	MTS License No. 127678 for provision of telematic communication services in the territory of the Stavropol Territory (English translation) is incorporated herein by reference to Exhibit 4.291 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.14	MTS License No. 127679 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Ulyanovsk Region (English translation) is incorporated herein by reference to Exhibit 4.286 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.15	MTS License No. 127680 for provision of telematic communication services in the territory of the Samara region (English translation) is incorporated herein by reference to Exhibit 4.290 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.16	MTS License No. 127681 for provision of telematic communication services in the territory of the Ulyanovsk region (English translation) is incorporated herein by reference to Exhibit 4.287 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.17	MTS License No. 127682 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Volgograd Region (English translation) is incorporated herein by reference to Exhibit 4.284 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.18	MTS License No. 127683 for provision of communications services for the provision of communication channels in the territory of the Stavropol Territory, the Astrakhan region (English translation) is incorporated herein by reference to Exhibit 4.282 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.19	MTS License No. 127684 for provision of telematic communication services in the territory of the Vologda region (English translation) is incorporated herein by reference to Exhibit 4.292 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.20	MTS License No. 127685 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Stavropol Territory (English translation) is incorporated herein by reference to Exhibit 4.285 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.21	MTS License No. 127686 for provision of communications services for the provision of communication channels in the territory of the Samara region, the Saratov region, the Ulyanovsk Region (English translation) is incorporated herein by reference to Exhibit 4.281 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.22	MTS License No. 127687 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Saratov region (English translation) is incorporated herein by reference to Exhibit 4.270 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.23	MTS License No. 127688 for provision of telematic communication services in the territory of the Saratov region (English translation) is incorporated herein by reference to Exhibit 4.278 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.24	MTS License No. 127689 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Samara region (English translation) is incorporated herein by reference to Exhibit 4.271 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.25	MTS License No. 127698 for provision of intrazonal telephone communication services in the territory of the Moscow region, Moscow (English translation) is incorporated herein by reference to Exhibit 4.302 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.26	MTS License No. 128517 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Republic of Tuva (English translation) is incorporated herein by reference to Exhibit 4.273 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.27	MTS License No. 128518 for provision of telematic communication services in the territory of the Sakha Republic (Yakutia) (English translation) is incorporated herein by reference to Exhibit 4.274 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.28	MTS License No. 128519 for provision of telematic communication services in the territory of the Tomsk region (English translation) is incorporated herein by reference to Exhibit 4.248 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.29	MTS License No. 128520 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Buryatiya Republic, the Magadan region, the Sakhalin region, the Kamchatka region (excluding the Koryak Autonomous Area) (English translation) is incorporated herein by reference to Exhibit 4.269 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.30	MTS License No. 128521 for provision of telematic communication services in the territory of the Republic of Tuva (English translation) is incorporated herein by reference to Exhibit 4.279 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.31	MTS License No. 128522 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Republic of Khakassia (English translation) is incorporated herein by reference to Exhibit 4.275 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.32	MTS License No. 128523 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Kemerovo region (English translation) is incorporated herein by reference to Exhibit 4.276 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.33	MTS License No. 128525 for provision of telematic communication services in the territory of the Republic of Khakassia (English translation) is incorporated herein by reference to Exhibit 4.277 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.34	MTS License No. 128526 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Novosibirsk region (English translation) is incorporated herein by reference to Exhibit 4.272 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.35	MTS License No. 128527 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Novosibirsk region (English translation) is incorporated herein by reference to Exhibit 4.262 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.36	MTS License No. 128528 for provision of communications services for the provision of communication channels in the territory of the Republic of Altai, the Altai Territory, the Novosibirsk Region (English translation) is incorporated herein by reference to Exhibit 4.259 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.37	MTS License No. 128529 for provision of communications services for the provision of communication channels in the territory of the Republic of Tuva (English translation) is incorporated herein by reference to Exhibit 4.258 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.38	MTS License No. 128530 for provision of telematic communication services in the territory of the Republic of Khakassia (English translation) is incorporated herein by reference to Exhibit 4.264 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.39	MTS License No. 128533 for provision of communications services for the provision of communication channels in the territory of the Republic of Khakassia (English translation) is incorporated herein by reference to Exhibit 4.260 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.40	MTS License No. 128534 for provision of data transmission services, except for data transmission services for the purpose of voice transmission Republic of Altai (English translation) is incorporated herein by reference to Exhibit 4.268 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.41	MTS License No. 128535 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Tomsk region (English translation) is incorporated herein by reference to Exhibit 4.263 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.42	MTS License No. 128536 for provision of telematic communication services in the territory of the Kamchatka region (excluding the excluding the Koryak Autonomous Area) (English translation) is incorporated herein by reference to Exhibit 4.265 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.43	MTS License No. 129942 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Republic of Kalmykia (English translation) is incorporated herein by reference to Exhibit 4.255 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.44	MTS License No. 129943 for provision of communications services for the provision of communication channels in the territory of the Chuvash Republic—Chuvashia (English translation) is incorporated herein by reference to Exhibit 4.249 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.45	MTS License No. 129944 for provision of telematic communication services in the territory of the Tatarstan Republic (English translation) is incorporated herein by reference to Exhibit 4.257 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.46	MTS License No. 129945 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Republic of Adygeya (English translation) is incorporated herein by reference to Exhibit 4.253 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.47	MTS License No. 129946 for provision of local telephone communication services, excluding local telephone communication services using coin-box telephones and public access services in the territory of the Kaluga region (English translation) is incorporated herein by reference to Exhibit 4.306 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.48	MTS License No. 129947 for provision of data telematic communication services in the territory of the Republic of Adygeya (English translation) is incorporated herein by reference to Exhibit 4.250 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.49	MTS License No. 129948 for provision of communications services for the provision of communication channels in the territory of the Republic of Adygeya, the Krasnodar Krai (English translation) is incorporated herein by reference to Exhibit 4.252 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.50	MTS License No. 129949 for provision of telematic communication services in the territory of the Astrakhan region (English translation) is incorporated herein by reference to Exhibit 4.254 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.51	MTS License No. 129950 for provision of local telephone communication services, excluding local telephone communication services using coin-box telephones and public access services in the territory of the Ryazan region: Ryazan (English translation) is incorporated herein by reference to Exhibit 4.256 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.52	MTS License No. 129951 for provision of telematic communication services in the territory of the Krasnodar region (English translation) is incorporated herein by reference to Exhibit 4.251 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.53	MTS License No. 129952 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Krasnodar Territory (English translation) is incorporated herein by reference to Exhibit 4.239 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.54	MTS License No. 129953 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Republic of Tatarstan (English translation) is incorporated herein by reference to Exhibit 4.304 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.55	MTS License No. 129954 for provision of mobile radio telephone services in the territory of the Rostov region (English translation) is incorporated herein by reference to Exhibit 4.294 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.56	MTS License No. 129955 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Republic of Bashkortostan (English translation) is incorporated herein by reference to Exhibit 4.243 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.57	MTS License No. 129956 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Astrakhan region (English translation) is incorporated herein by reference to Exhibit 4.242 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.58	MTS License No. 129957 for provision of telematic communication services in the territory of the Republic of Kalmykia (English translation) is incorporated herein by reference to Exhibit 4.245 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.59	MTS License No. 130982 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Irkutsk region, the Jewish Autonomous region, the Chukotsk Autonomous region, and Koryak Autonomous Area of the Kamchatka region (English translation) is incorporated herein by reference to Exhibit 4.246 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.60	MTS License No. 130983 for provision of communications services for the provision of communication channels in the territory of the Buryatiya Republic (English translation) is incorporated herein by reference to Exhibit 4.241 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.61	MTS License No. 130984 for provision of telematic communication services in the territory of the Irkutsk region, the Jewish Autonomous Region, the Chukotsk Autonomous region, and the Koryak District of the Kamchatka Territory (English translation) is incorporated herein by reference to Exhibit 4.247 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.62	MTS License No. 130985 for provision of data transmission services for the purpose of voice transmission in the territory of the Belgorod region, the Bryansk region, the Voronezh region, the Kursk region, the Lipetsk region, the Orel region (English translation) is incorporated herein by reference to Exhibit 4.238 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.63	MTS License No. 130986 for provision of communications services for the provision of communication channels in the territory of the Sakhalin region (English translation) is incorporated herein by reference to Exhibit 4.240 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.64	MTS License No. 131138 for provision of data transmission services for the purpose of voice transmission in the territory of the Yaroslavl Region (English translation) is incorporated herein by reference to Exhibit 4.235 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.65	MTS License No. 131715 for provision of local telephone communication services, excluding local telephone communication services using coin-box telephones and public access services in the territory of Ufa, the Republic of Bashkortostan (English translation) is incorporated herein by reference to Exhibit 4.230 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.66	MTS License No. 131716 for provision of telematic communication services in the territory of the Republic of Mari El (English translation) is incorporated herein by reference to Exhibit 4.232 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.67	MTS License No. 131717 for provision of telematic communication services in the territory of the Chuvashia Republic, Mordovia Republic (English translation) is incorporated herein by reference to Exhibit 4.264 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.68	MTS License No. 131718 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Mordovia Republic, the Chuvash Republic—Chuvashia (English translation) is incorporated herein by reference to Exhibit 4.231 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.69	MTS License No. 131719 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Republic of Dagestan, the Republic of Ingushetia, the KabardinoBalkar Republic, the KarachayevoCherkesia Republic, the Republic of North Ossetia-Alania (English translation) is incorporated herein by reference to Exhibit 4.237 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.70	MTS License No. 131720 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Mari El Republic (English translation) is incorporated herein by reference to Exhibit 4.233 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.71	MTS License No. 131721 for provision of telematic communication services in the territory of the Republic of Daghestan, the Republic of Ingushetia, the KabardinoBalkar Republic, the KarachayevoCherkesia Republic, Republic of North Ossetia-Alania (English translation) is incorporated herein by reference to Exhibit 4.234 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.72	Sibintertelecom CJSC License No. 132675 for provision of mobile radio telephone services in the territory of Zabaykalsky Territory (English translation) is incorporated herein by reference to Exhibit 4.313 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.73	MTS License No. 134506 for provision of communications services for the provision of communication channels in the territory of the Vladimir region, the Kaluga region, the Pskov region, the Ryazan region, the Smolensk region, the Tula region (English translation) is incorporated herein by reference to Exhibit 4.224 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.74	MTS License No. 134507 for provision of telematic communication services in the territory of the Rostov region (English translation) is incorporated herein by reference to Exhibit 4.221 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.75	MTS License No. 134508 for provision of data transmission services for the purpose of voice transmission in the territory of the Moscow region (English translation) is incorporated herein by reference to Exhibit 4.219 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.76	MTS License No. 134509 for provision of communications services for the provision of communication channels in the territory of the Ivanov region, the Kirov region, the Nizhny Novgorod region, the Yaroslavl region (English translation) is incorporated herein by reference to Exhibit 4.228 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.77	MTS License No. 134510 for provision of data transmission services for the purpose of voice transmission in the territory of the Ivanovo region (English translation) is incorporated herein by reference to Exhibit 4.220 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.78	MTS License No. 134511 for provision of communications services for the provision of communication channels in the territory of the Mari El Republic (English translation) is incorporated herein by reference to Exhibit 4.223 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.79	MTS License No. 134512 for provision of data transmission services for the purpose of voice transmission in the territory of the Kaluga Region (English translation) is incorporated herein by reference to Exhibit 4.225 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.80	MTS License No. 135026 for provision of communications services for the provision of communication channels in the territory of the Sakha Republic (Yakutia), the Khabarovsk Territory, the Zabaikalye Territory (excluding the Aginski Buryatski Autonomous District) (English translation) is incorporated herein by reference to Exhibit 4.218 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.81	MTS License No. 135027 for provision of intrazonal telephone communication services in the territory of the Moscow region (English translation) is incorporated herein by reference to Exhibit 4.226 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.82	MTS License No. 135028 for provision of intrazonal telephone communication services in the territory of the Republic of Bashkortostan (English translation) is incorporated herein by reference to Exhibit 4.227 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.83	MTS License No. 135029 for provision of data transmission services for the purpose of voice transmission in the territory of the Primorye Territory, the Sakhalin region, Irkutsk region (excluding the Ust-Ordyn Buryat District) (English translation) is incorporated herein by reference to Exhibit 4.222 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.84	MGTS License No. 135506 for provision of data transmission services for the purpose of voice transmission in the territory of Moscow (English translation) is incorporated herein by reference to Exhibit 4.227 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F is incorporated herein by reference to Exhibit 4.227 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.85	Teleservice JSC License No. 135893 for provision of data communication services, except for data communication services for voice transmission in the territory of the Voronezh region (English translation) is incorporated herein by reference to Exhibit 4.267 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.86	Teleservice JSC License No. 135894 for provision of telematic communication services in the territory of the Voronezh region (English translation) is incorporated herein by reference to Exhibit 4.268 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.87	MTS License No. 135956 for provision of intrazonal telephone communication services in the territory of the Perm Territory (English translation) is incorporated herein by reference to Exhibit 4.305 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.88	MTS License No. 135957 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Primorsky Territory (English translation) is incorporated herein by reference to Exhibit 4.228 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.89	MTS License No. 135958 for provision of mobile radio telephone services in the territory of Republic of Kalmykia (English translation) is incorporated herein by reference to Exhibit 4.211 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.90	MTS License No. 135959 for provision of communications services for the provision of communication channels in the territory of Aginski Buryatski Autonomous District of the Zabaikalye Territory (English translation) is incorporated herein by reference to Exhibit 4.216 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.91	MTS License No. 135960 for provision of intrazonal telephone communication services in the territory of the Ulyanovsk region (English translation) is incorporated herein by reference to Exhibit 4.215 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.92	MTS License No. 135961 for provision of telematic communication services in the territory of the Primorsky Territory (English translation) is incorporated herein by reference to Exhibit 4.210 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.93	MTS License No. 135962 for provision of intrazonal telephone communication services in the territory of the Tyumen region, YamaloNenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.214 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.94	MTS License No. 135963 for provision of communications services for the provision of communication channels in the territory of the Aginski Buryatski Autonomous District of the Penza region (English translation) is incorporated herein by reference to Exhibit 4.213 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.95	MTS License No. 135964 for provision of mobile radio telephone services in fixed communication network in the territory of the Yamalo-Nenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.299 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.

Exhibits No.	Description
4.96	MTS License No. 135965 for provision of communications services for the provision of communication channels in the territory of the Mordovia Republic (English translation) is incorporated herein by reference to Exhibit 4.212 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.97	MTS License No. 135966 for provision of data transmission services for the purpose of voice transmission in the territory of the Tyumen Region, the Yamalo-Nenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.300 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.98	MTS License No. 135967 for provision of intrazonal telephone communication services in the territory of the Chelyabinsk Region (English translation) is incorporated herein by reference to Exhibit 4.204 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.99	MTS License No. 136447 for provision of mobile radio telephone services in the territory of the Amur region (English translation) is incorporated herein by reference to Exhibit 4.199 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.100	MTS License No. 136448 for provision of mobile radio telephone services in the territory of the Orenburg Region (English translation) is incorporated herein by reference to Exhibit 4.205 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.101	MTS License No. 136449 for provision of mobile radio telephone services in the territory of the Republic of North Ossetia-Alania (English translation) is incorporated herein by reference to Exhibit 4.206 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.102	MTS License No. 136450 for provision of mobile radio telephone services in the territory of the Perm Territory, excluding the Komi-Permyak area (English translation) is incorporated herein by reference to Exhibit 4.207 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.103	MTS License No. 136451 for provision of mobile radio telephone services in the territory of the Perm Territory—the Komi-Permyak area (English translation) is incorporated herein by reference to Exhibit 4.200 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.104	MGTS License No. 137356 for provision of data transmission services for cable broadcasting in the territory of the Moscow (English translation) is incorporated herein by reference to Exhibit 4.231 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.

Exhibits No.	Description
4.105	MTS License No. 137565 for provision of data transmission services for the purpose of voice transmission in the territory of the Rostov region (English translation) is incorporated herein by reference to Exhibit 4.202 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.106	MTS License No. 137566 for provision of intrazonal telephone communication services in the territory of Moscow (English translation) is incorporated herein by reference to Exhibit 4.208 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.107	MTS License No. 137567 for provision of telematic communication services in the territory of the Komi Republic, the Udmurt Republic, the Perm Territory, the Amur region, the Belgorod region, the Bryansk region, the Vladimir region, the Voronezh region, the Ivanovo region, the Kaluga region, the Kirov region, the Kostroma region, the Kurgan region, the Kursk region, the Lipetsk region, the Moscow region, the Nizhniy Novgorod region, the Omsk region, the Orenburg region, the Orel region, the Pskov region, the Ryazan region, the Sverdlovsk region, the Smolensk region, the Tambov region, the Tver region, the Tula Region, the Tyumen region, the Chelyabinsk region, the Yaroslavl region, Moscow, the Khanty Mansiysk Autonomous region, the YamaloNenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.203 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.108	MTS License No. 137711 for provision of communication services for the purpose of wire broadcasting in the territory of the Chelyabinsk region (English translation) is incorporated herein by reference to Exhibit 4.201 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.109	Teleservice JSC License No. 138177 for provision of telecommunication services for cable broadcasting in the territory of the Voronezh Region (English translation) is incorporated herein by reference to Exhibit 4.232 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.110	MTS License No. 138258 for provision of for provision of telematic communication services in the territory of the Novosibirsk region (English translation) is incorporated herein by reference to Exhibit 4.195 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.111	MTS License No. 138260 for provision of data transmission services for the purpose of voice transmission in the territory of the Republic of Bashkortostan (English translation) is incorporated herein by reference to Exhibit 4.233 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.112	MTS License No. 138261 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Rostov Region (English translation) is incorporated herein by reference to Exhibit 4.234 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.

Exhibits No.	Description
4.113	MTS License No. 138262 for provision of communications services for the provision of communication channels in the territory of the Udmurt Republic, Perm Territory, Amur region, the Kurgan region, the Orenburg region, the Sverdlovsk region, the Tambov region, the Tumen region, the Chelyabinsk region, the Khanty Mansiysk Autonomous region, the YamaloNenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.197 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2015, on Form 20-F.
4.114	MTS License No. 138952 for provision of intra-area telephone communication services in the territory of the Ryazan Region (English translation) is incorporated herein by reference to Exhibit 4.236 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.115	MTS License No. 138956 for provision of mobile radio communication services in the allocated telecommunications network in the territory of the Khanty-Mansiysk Autonomous District-Yugra (English translation) is incorporated herein by reference to Exhibit 4.238 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.116	MTS License No. 140009 for provision of local telecommunication services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Sverdlovsk Region (English translation) is incorporated herein by reference to Exhibit 4.239 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.117	MTS License No. 140458 for provision of local telecommunication services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Republic of Khakassia (English translation) is incorporated herein by reference to Exhibit 4.240 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.118	MTS License No. 140459 for provision of telematic communication services in the territory of Bashkortostan (English translation) is incorporated herein by reference to Exhibit 4.241 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.119	MTS License No. 141521 for provision of mobile radio telephone communication services in the territory of the Republic Altai (English translation) is incorporated herein by reference to Exhibit 4.244 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.120	MTS License No. 142343 for provision of mobile radio telephone communication services in the territory of the Russian Federation, except for Moscow, the Moscow Region, the Republic of Crimea and Sevastopol (English translation) is incorporated herein by reference to Exhibit 4.245 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.

Exhibits No.	Description
4.121	MTS License No. 142344 for provision of data communication services, except for data communication services for voice transmissions in the territory of the Russian Federation, except for Moscow, the Moscow Region, the Republic of Crimea and Sevastopol (English translation) is incorporated herein by reference to Exhibit 4.246 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.122	MTS License No. 142345 for provision of data communication services for voice transmissions in the territory of the Russian Federation, except for Moscow, the Moscow Region, the Republic of Crimea and Sevastopol (English translation) is incorporated herein by reference to Exhibit 4.247 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.123	MTS License No. 142346 for provision of telematic communication services in the territory of the Russian Federation, except for Moscow, the Moscow Region, the Republic of Crimea and Sevastopol (English translation) is incorporated herein by reference to Exhibit 4.248 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.124	MTS License No. 144270 for provision of mobile radio telephone communication services in the territory of the Republic of North Ossetia-Alania (English translation) is incorporated herein by reference to Exhibit 4.251 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.125	MTS License No. 145056 for provision of telematic communication services in the territory of the Republic of Karelia, Arkhangelsk Region, Vologda Region, Kaliningrad Region, Leningrad Region, Murmansk Region, Novgorod Region, Saint Perterburg, Nenets Autonomous District (English translation) is incorporated herein by reference to Exhibit 4.252 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.126	MTS License No. 145059 for provision of mobile radio telephone communication services in the territory of the Volgograd Region (English translation) is incorporated herein by reference to Exhibit 4.255 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.127	MTS License No. 145060 for provision of intra-area telephone communication services in the territory of the Omsk Region (English translation) is incorporated herein by reference to Exhibit 4.256 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.128	MTS License No. 145447 for provision of intra-area telephone communication services in the territory of the Omsk Region (English translation) is incorporated herein by reference to Exhibit 4.257 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.

Exhibits No.	Description
4.129	MTS License No. 146066 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Khabarovsk Territory (English translation) is incorporated herein by reference to Exhibit 4.259 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.130	MTS License No. 146067 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Krasnodar Territory (English translation) is incorporated herein by reference to Exhibit 4.260 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.131	MTS License No. 146068 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Ivanovo Region (English translation) is incorporated herein by reference to Exhibit 4.261 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.132	MTS License No. 146069 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Irkutsk Region, except for the Ust-Ordyn Buryat Autonomus District (English translation) is incorporated herein by reference to Exhibit 4.262 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.133	MTS License No. 146070 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Primorsky Territory (English translation) is incorporated herein by reference to Exhibit 4.263 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.134	MTS License No. 146071 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Novosibirsk Region (English translation) is incorporated herein by reference to Exhibit 4.264 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.135	MTS License No. 146072 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Orenburg Region (English translation) is incorporated herein by reference to Exhibit 4.265 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.

Exhibits No.	Description
4.136	MTS License No. 146073 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Altai Territory (English translation) is incorporated herein by reference to Exhibit 4.266 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.137	MTS License No. 146074 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Chelyabinsk Region (English translation) is incorporated herein by reference to Exhibit 4.267 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.138	MTS License No. 146075 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Nizhny Novgorod Region (English translation) is incorporated herein by reference to Exhibit 4.268 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.139	MTS License No. 146076 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Republic of Sakha (Yakutia) (English translation) is incorporated herein by reference to Exhibit 4.269 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.140	MTS License No. 146077 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Yaroslavl Region (English translation) is incorporated herein by reference to Exhibit 4.270 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.141	MTS License No. 146078 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Perm Territory (English translation) is incorporated herein by reference to Exhibit 4.271 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.142	MTS License No. 146079 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Republic of Komi (English translation) is incorporated herein by reference to Exhibit 4.272 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.

Exhibits No.	Description
4.143	MTS License No. 146080 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Astrakhan Region (English translation) is incorporated herein by reference to Exhibit 4.273 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.144	MTS License No. 146081 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Sakhalin Region (English translation) is incorporated herein by reference to Exhibit 4.274 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.145	MTS License No. 146082 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Republic of Tatarstan (English translation) is incorporated herein by reference to Exhibit 4.275 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.146	MTS License No. 146084 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Rostov Region (English translation) is incorporated herein by reference to Exhibit 4.277 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.147	MTS License No. 146085 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Volgograd Region (English translation) is incorporated herein by reference to Exhibit 4.278 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.148	MTS License No. 146086 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Kurgan Region (English translation) is incorporated herein by reference to Exhibit 4.279 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.149	MTS License No. 146087 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Krasnoyarsk Territory, except for the Evenk Autonomous District (English translation) is incorporated herein by reference to Exhibit 4.280 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.

Exhibits No.	Description
4.150	MTS License No. 146088 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Omsk Region (English translation) is incorporated herein by reference to Exhibit 4.281 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.151	MTS License No. 146089 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Kirov Region (English translation) is incorporated herein by reference to Exhibit 4.282 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.152	MTS License No. 146090 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Samara Region (English translation) is incorporated herein by reference to Exhibit 4.283 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.153	MTS License No. 146091 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Udmurt Republic (English translation) is incorporated herein by reference to Exhibit 4.284 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.154	MTS License No. 146092 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Amur Region (English translation) is incorporated herein by reference to Exhibit 4.285 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.155	MTS License No. 146094 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Tomsk Region (English translation) is incorporated herein by reference to Exhibit 4.287 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.156	MGTS License No. 146656 for provision of data communication services for voice transmission in the territory of the Moscow region (English translation) is incorporated herein by reference to Exhibit 4.269 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.157	MTS License No. 147352 for provision of telematic communications services in the territory of the Altai Territory (English translation) is incorporated herein by reference to Exhibit 4.288 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.

Exhibits No.	Description
4.158	MTS License No. 147353 for provision of mobile radio telephone communications services in the territory of the Moscow Region and Moscow (English translation) is incorporated herein by reference to Exhibit 4.289 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.159	MTS License No. 147354 for provision of intra-area telephone communications services in the territory of the Leningrad Region (English translation) is incorporated herein by reference to Exhibit 4.290 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.160	MTS License No. 147357 for provision of communications channel provision services in the territory of the Omsk Region (English translation) is incorporated herein by reference to Exhibit 4.293 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.161	MTS License No. 148176 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Altai Republic (English translation) is incorporated herein by reference to Exhibit 4.271 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.162	MTS License No. 148177 for provision of mobile radio telephone communication services in the territory of the Mari El Republic (English translation) is incorporated herein by reference to Exhibit 4.275 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.163	MTS License No. 149146 for provision of data communication services for voice transmission in the territory of the Kaliningrad region (English translation) is incorporated herein by reference to Exhibit 4.277 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.164	MTS License No. 149147 for provision of communication channel provision services in the territory of the Kaliningrad region (English translation) is incorporated herein by reference to Exhibit 4.278 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.165	MTS License No. 149148 for provision of data communication services for voice transmission in the territory of the Mari El Republic (English translation) is incorporated herein by reference to Exhibit 4.279 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.166	MTS License No. 149149 for provision of data communication services for voice transmission in the territory of the Severnaya Osetia Alania Republic (English translation) is incorporated herein by reference to Exhibit 4.280 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.167	MTS License No. 149150 for provision of data communication services for voice transmission in the territory of the Tomsk region (English translation) is incorporated herein by reference to Exhibit 4.280 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.168	MTS License No. 149151 for provision of data communication services for voice transmission in the territory of the Komi Republic (English translation) is incorporated herein by reference to Exhibit 4.282 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.169	MTS License No. 149152 for provision of data communication services for voice transmission in the territory of the Kirov region (English translation) is incorporated herein by reference to Exhibit 4.283 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.170	MTS License No. 149153 for provision of data communication services for voice transmission in the territory of the Murmansk region (English translation) is incorporated herein by reference to Exhibit 4.284 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.171	MTS License No. 149154 for provision of data communication services for voice transmission in the territory of the Stavropol territory (English translation) is incorporated herein by reference to Exhibit 4.285 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.172	MTS License No. 149155 for provision of data communication services for voice transmission in the territory of the Penza region (English translation) is incorporated herein by reference to Exhibit 4.286 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.173	MTS License No. 149156 for provision of data communication services for voice transmission in the territory of the Buryatiya Republic (English translation) is incorporated herein by reference to Exhibit 4.287 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.174	MTS License No. 149157 for provision of data communication services for voice transmission in the territory of the Chechen Republic (English translation) is incorporated herein by reference to Exhibit 4.288 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.175	MTS License No. 149158 for provision of data communication services for voice transmission in the territory of the Mordovia Republic (English translation) is incorporated herein by reference to Exhibit 4.289 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.176	MTS License No. 149159 for provision of data communication services for voice transmission in the territory of the KarachaevoCherkesia Republic (English translation) is incorporated herein by reference to Exhibit 4.290 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.177	MTS License No. 149160 for provision of data communication services for voice transmission in the territory of the Ingushetia Republic (English translation) is incorporated herein by reference to Exhibit 4.291 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.178	MTS License No. 149161 for provision of data communication services for voice transmission in the territory of the Altai territory (English translation) is incorporated herein by reference to Exhibit 4.292 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.179	MTS License No. 149162 for provision of data communication services for voice transmission in the territory of the Kalmykia Republic (English translation) is incorporated herein by reference to Exhibit 4.293 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.180	MTS License No. 149163 for provision of data communication services for voice transmission in the territory of the KabardinoBalkar Republic (English translation) is incorporated herein by reference to Exhibit 4.294 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.181	MTS License No. 149164 for provision of data communication services for voice transmission in the territory of the Adygeya Republic (English translation) is incorporated herein by reference to Exhibit 4.295 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.182	MTS License No. 149165 for provision of data communication services for voice transmission in the territory of the Saratov region (English translation) is incorporated herein by reference to Exhibit 4.296 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.183	MTS License No. 149166 for provision of data communication services for voice transmission in the territory of the Chelyabinsk region (English translation) is incorporated herein by reference to Exhibit 4.297 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.184	MTS License No. 149167 for provision of data communication services for voice transmission in the territory of the Karelia Republic (English translation) is incorporated herein by reference to Exhibit 4.298 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.185	MTS License No. 149168 for provision of data communication services for voice transmission in the territory of the Ulyanovsk region (English translation) is incorporated herein by reference to Exhibit 4.299 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.186	MTS License No. 149169 for provision of data communication services for voice transmission in the territory of the Kurgan region (English translation) is incorporated herein by reference to Exhibit 4.300 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.187	MTS License No. 149170 for provision of data communication services for voice transmission in the territory of the Khabarovsk Territory (English translation) is incorporated herein by reference to Exhibit 4.301 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.188	MTS License No. 149171 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Ulyanovsk region (English translation) is incorporated herein by reference to Exhibit 4.302 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.189	MTS License No. 149172 for provision of data communication services for voice transmission in the territory of the Tyva Republic (English translation) is incorporated herein by reference to Exhibit 4.303 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.190	MTS License No. 149173 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Bashkortostan Republic (English translation) is incorporated herein by reference to Exhibit 4.304 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.191	MTS License No. 149174 for provision of communication channel provision services in the territory of the St. Petersburg, Leningrad region, Arkhangelsk region, Karelia Republic, Murmansk region, Nenetsk Autonomous region, Novgorod region, Vologda region (English translation) is incorporated herein by reference to Exhibit 4.305 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.192	MTS License No. 149175 for provision of data communication services for voice transmission in the territory of the Kostroma region (English translation) is incorporated herein by reference to Exhibit 4.306 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.193	MTS License No. 149176 for provision of data communication services for voice transmission in the territory of the Altai Republic (English translation) is incorporated herein by reference to Exhibit 4.307 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.194	MTS License No. 149177 for provision of data communication services for voice transmission in the territory of the Pskov region (English translation) is incorporated herein by reference to Exhibit 4.308 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.195	MTS License No. 149178 for provision of data communication services for voice transmission in the territory of the Amur region (English translation) is incorporated herein by reference to Exhibit 4.309 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.196	MTS License No. 149179 for provision of data communication services for voice transmission in the territory of the Dagestan Republic (English translation) is incorporated herein by reference to Exhibit 4.310 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.197	MTS License No. 149180 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Tambov region (English translation) is incorporated herein by reference to Exhibit 4.311 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.198	MTS License No. 149181 for provision of data communication services for voice transmission in the territory of the Kamchatka region (English translation) is incorporated herein by reference to Exhibit 4.312 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.199	MTS License No. 149182 for provision of data communication services for voice transmission in the territory of the Orenburg region (English translation) is incorporated herein by reference to Exhibit 4.313 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.200	MTS License No. 149183 for provision of data communication services for voice transmission in the territory of the Sakha Republic (Yakutia) (English translation) is incorporated herein by reference to Exhibit 4.314 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.201	MTS License No. 149184 for provision of data communication services for voice transmission in the territory of the Khakassiya Republic (English translation) is incorporated herein by reference to Exhibit 4.315 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.202	MTS License No. 149185 for provision of data communication services for voice transmission in the territory of the Zabaykalsky Territory (English translation) is incorporated herein by reference to Exhibit 4.316 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.203	MTS License No. 149186 for provision of data communication services for voice transmission in the territory of the Chuvashia Republic (English translation) is incorporated herein by reference to Exhibit 4.317 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.204	MTS License No. 149187 for provision of data communication services for voice transmission in the territory of the Vologda region (English translation) is incorporated herein by reference to Exhibit 4.318 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.205	MTS License No. 149188 for provision of data communication services for voice transmission in the territory of the Magadan region (English translation) is incorporated herein by reference to Exhibit 4.319 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.206	MTS License No. 149644 for provision of intra-area telephone communications services in the territory of the Orenburg region (English translation) is incorporated herein by reference to Exhibit 4.320 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.207	MTS License No. 149645 for provision of intra-area telephone communications services in the territory of the Sverdlovsk region (English translation) is incorporated herein by reference to Exhibit 4.321 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.208	MTS License No. 149647 for provision of intra-area telephone communications services in the territory of the Khabarovsk Territory (English translation) is incorporated herein by reference to Exhibit 4.322 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.209	MTS License No. 149648 for provision of intra-area telephone communications services in the territory of the Primorsky Territory (English translation) is incorporated herein by reference to Exhibit 4.323 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.210	MTS License No. 149649 for provision of intra-area telephone communications services in the territory of the Penza region (English translation) is incorporated herein by reference to Exhibit 4.324 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.211	MTS License No. 149650 for provision of intra-area telephone communications services in the territory of the Udmurt Republic (English translation) is incorporated herein by reference to Exhibit 4.325 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.212	MTS License No. 149653 for provision of intra-area telephone communications services in the territory of the Kirov region (English translation) is incorporated herein by reference to Exhibit 4.327 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.213	MTS License No. 149654 for provision of intra-area telephone communications services in the territory of the Saratov region (English translation) is incorporated herein by reference to Exhibit 4.328 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.214	MTS License No. 149715 for provision of telecommunications services for wired radio broadcasting in the territory of the Kirov Region (English translation) is incorporated herein by reference to Exhibit 4.295 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.215	MTS License No. 149829 for provision of mobile radio telephone communication services in the territory of the Chechen Republic (English translation) is incorporated herein by reference to Exhibit 4.297 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.216	MTS License No. 150052 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the St. Petersburg, Leningrad region, Arkhangelsk region, Karelia Republic, Murmansk region, Novgorod region, Vologda region (English translation) is incorporated herein by reference to Exhibit 4.330 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.217	MTS License No. 150053 for provision of data communication services, except for data communication services for voice transmission in the territory of the Amur region (English translation) is incorporated herein by reference to Exhibit 4.331 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.218	MTS License No. 150054 for provision of data communication services, except for data communication services for voice transmission in the territory of the St. Petersburg, Leningrad region, Arkhangelsk region, Kaliningrad region, Karelia Republic, Komi Republic, Murmansk region, Nenets Autonomous region, Novgorod region, Pskov region, Vologda region (English translation) is incorporated herein by reference to Exhibit 4.332 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.219	MTS License No. 150055 for provision of data communication services, except for data communication services for voice transmission in the territory of the Orenburg region (English translation) is incorporated herein by reference to Exhibit 4.333 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.220	MTS License No. 150056 for provision of data communication services, except for data communication services for voice transmission in the territory of the Moscow, Moscow region (English translation) is incorporated herein by reference to Exhibit 4.334 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.221	MTS License No. 150057 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Penza region (English translation) is incorporated herein by reference to Exhibit 4.335 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.222	MTS License No. 150058 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Moscow region (English translation) is incorporated herein by reference to Exhibit 4.336 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.223	MTS License No. 150059 for provision of data communication services, except for data communication services for voice transmission in the territory of the Ivanovo region, Kaluga region, Kostroma region, Ryazan region, Smolensk region, Tambov region, Tula region, Tver region, Vladimir region, Yaroslavl region (English translation) is incorporated herein by reference to Exhibit 4.337 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.224	MTS License No. 150060 for provision of data communication services, except for data communication services for voice transmission in the territory of the Perm region, Chelyabinsk region, Khanty Mansiysk Autonomous region, Kurgan region, Omsk region, Sverdlovsk region, Tyumen region, YamaloNenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.338 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.225	MTS License No. 150061 for provision of data communication services for voice transmission in the territory of the Moscow (English translation) is incorporated herein by reference to Exhibit 4.339 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.226	MTS License No. 150062 for provision of data communication services, except for data communication services for voice transmission in the territory of the Belgorod region, Bryansk region, Kursk region, Lipetsk region, Orel region, Voronezh region (English translation) is incorporated herein by reference to Exhibit 4.340 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.227	MTS License No. 150063 for provision of data communication services, except for data communication services for voice transmission in the territory of the Kirov region, Nizhny Novgorod region, Udmurt Republic (English translation) is incorporated herein by reference to Exhibit 4.341 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.228	MTS License No. 150064 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Moscow (English translation) is incorporated herein by reference to Exhibit 4.342 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.229	MTS License No. 152080 for provision of communication channel provision services in the territory of the Magadan region (English translation) is incorporated herein by reference to Exhibit 4.345 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.230	MTS License No. 152081 for provision of telematic communication services in the territory of the Altai Republic (English translation) is incorporated herein by reference to Exhibit 4.346 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.231	MTS License No. 152082 for provision of communication channel provision services in the territory of the Irkutsk region (English translation) is incorporated herein by reference to Exhibit 4.347 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.232	MTS License No. 152083 for provision of communication channel provision services in the territory of the Dagestan Republic (English translation) is incorporated herein by reference to Exhibit 4.348 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.233	MTS License No. 152084 for provision of communication channel provision services in the territory of the Kamchatka region (English translation) is incorporated herein by reference to Exhibit 4.349 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.234	MTS License No. 152085 for provision of mobile radio telephone communication services in the territory of the Krasnodar territory (English translation) is incorporated herein by reference to Exhibit 4.350 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.235	MTS License No. 152165 for provision of telecommunication services for the purpose of wired radio broadcasting services in the territory of the Rostov Region (English translation) is incorporated herein by reference to Exhibit 4.308 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2016, on Form 20-F.
4.236	MTS License No. 152516 for provision of mobile radio telephone communication services in the territory of the Tatarstan Republic (English translation) is incorporated herein by reference to Exhibit 4.351 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.237	MTS License No. 152517 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Dagestan Republic (English translation) is incorporated herein by reference to Exhibit 4.352 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.238	MTS License No. 152518 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Severnaya Osetia Alania Republic (English translation) is incorporated herein by reference to Exhibit 4.353 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.239	MTS License No. 153738 for provision of data communication services for voice transmission in the territory of the Krasnodar territory (English translation) is incorporated herein by reference to Exhibit 4.355 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.240	MTS License No. 153739 for provision of mobile radio telephone communication services in the territory of the Saratov region (English translation) is incorporated herein by reference to Exhibit 4.356 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.241	MTS License No. 154793 for provision of mobile radio telephone communication services in the territory of the Komi Republic (English translation) is incorporated herein by reference to Exhibit 4.361 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.242	MTS License No. 154794 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Tyumen region, YamaloNenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.362 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.243	MGTS License No. 154857 for provision of telecommunications services for wired radio broadcasting in the territory of the Moscow region, Moscow (English translation) is incorporated herein by reference to Exhibit 4.26 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.244	MTS License No. 155415 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Orel region, Voronezh region (English translation) is incorporated herein by reference to Exhibit 4.369 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.245	MTS License No. 155416 for provision of intra-area telephone communications services in the territory of the Orel region (English translation) is incorporated herein by reference to Exhibit 4.370 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.246	MTS License No. 156543 for provision of telecommunications services for wired radio broadcasting in the territory of the Volgograd region (English translation) is incorporated herein by reference to Exhibit 4.371 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.247	MTS License No. 156887 for provision of data communication services, except for data communication services for voice transmission in the territory of the Chechen Republic (English translation) is incorporated herein by reference to Exhibit 4.372 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.248	MTS License No. 156888 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Kaliningrad region (English translation) is incorporated herein by reference to Exhibit 4.373 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.249	MTS License No. 156889 for provision of telematic communication services in the territory of the Chechen Republic (English translation) is incorporated herein by reference to Exhibit 4.374 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.250	MTS License No. 156890 for provision of mobile radio telephone communication services in the territory of the Samara region (English translation) is incorporated herein by reference to Exhibit 4.375 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.251	MTS License No. 157431 for provision of intra-area telephone communications services in the territory of the Tver region (English translation) is incorporated herein by reference to Exhibit 4.376 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.252	MTS License No. 158896 for provision of intra-area telephone communications services in the territory of the Novosibirsk region (English translation) is incorporated herein by reference to Exhibit 4.380 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.253	MTS License No. 158897 for provision of data transfer communication services for purposes of voice messages transmission in the territory of the Udmurt Republic (English translation) is incorporated herein by reference to Exhibit 4.381 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.254	MTS License No. 158898 for provision of data transfer communication services for purposes of voice messages transmission in the territory of the Perm region (English translation) is incorporated herein by reference to Exhibit 4.382 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.255	MTS License No. 158899 for provision of intra-area telephone communications services in the territory of the Altai territory (English translation) is incorporated herein by reference to Exhibit 4.383 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.256	MTS License No. 158900 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Smolensk region (English translation) is incorporated herein by reference to Exhibit 4.384 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.257	MTS License No. 158901 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Belgorod region, Bryansk region, Kursk region, Lipetsk region (English translation) is incorporated herein by reference to Exhibit 4.385 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.258	MTS License No. 158902 for provision of intra-area telephone communications services in the territory of the Krasnoyarsk Territory (English translation) is incorporated herein by reference to Exhibit 4.386 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.259	MTS License No. 158903 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of the Tver region (English translation) is incorporated herein by reference to Exhibit 4.387 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.260	MTS License No. 158904 for provision of intra-area telephone communications services in the territory of the Tomsk region (English translation) is incorporated herein by reference to Exhibit 4.388 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.261	MTS License No. 159593 for provision of data transfer communication services for purposes of voice messages transmission in the territory of the Nenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.390 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.262	MTS License No. 159594 for provision of data transfer communication services for purposes of voice messages transmission in the territory of the Ryazan region, Vladimir region (English translation) is incorporated herein by reference to Exhibit 4.391 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.263	MTS License No. 159595 for provision of data transfer communication services for purposes of voice messages transmission in the territory of the Khanty Mansiysk Autonomous region, Sverdlovsk region (English translation) is incorporated herein by reference to Exhibit 4.392 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.264	MTS License No. 159596 for provision of data transfer communication services for purposes of voice messages transmission in the territory of the Chukotsk Autonomous region, Jewish Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.393 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.265	MTS License No. 159597 for provision of local telephone communication services, excluding local telephone communication services using payphones and shared-access facilities in the territory of the Saratov Region (English translation) is incorporated herein by reference to Exhibit 4.403 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.266	MTS License No. 159598 for provision of data transfer communication services for purposes of voice messages transmission in the territory of the Tatarstan Republic (English translation) is incorporated herein by reference to Exhibit 4.394 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.267	MTS License No. 159599 for provision of local telephone communication services, excluding local telephone communication services using payphones and shared-access facilities in the territory of the Chuvashia Republic (English translation) is incorporated herein by reference to Exhibit 4.273 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.

Exhibits No.	Description
4.268	MTS License No. 159600 for provision of local telephone communication services, excluding local telephone communication services using payphones and shared-access facilities in the territory of the Mari El Republic (English translation) is incorporated herein by reference to Exhibit 4.272 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.269	MTS License No. 159601 for provision of communication channels in the territory of the Republic of Ingushetia, Kabardino-Balkar Republic, KarachaevoCherkesia Republic, Volgograd Region (English translation) is incorporated herein by reference to Exhibit 4.255 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.270	MTS License No. 159602 for provision of local telephone communication services, excluding local telephone communication services using payphones and shared-access facilities in the territory of the the Republic of Buryatia (English translation) is incorporated herein by reference to Exhibit 4.274 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.271	MTS License No. 159702 for provision of telecommunications services for wired radio broadcasting in the territory of the Penza region (English translation) is incorporated herein by reference to Exhibit 4.395 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.272	MTS License No. 160409 for provision of mobile radio telephone services in the territory of Adygeya Republic (English translation) is incorporated herein by reference to Exhibit 4.314 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.273	MTS License No. 160410 for provision of mobile radio telephone services in the territory of Moscow, Moscow region (English translation) is incorporated herein by reference to Exhibit 4.315 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.274	MTS License No. 160629 for provision of intra-area telephone communications services in the territory of the Khanty Mansiysk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.396 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.275	MTS License No. 161213 for provision of mobile radio telephone services in the territory of St. Petersburg, Leningrad region, Arkhangelsk region, Kaliningrad region, Karelia Republic, Murmansk region, Nenetsk Autonomous region, Novgorod region, Pskov region, Vologda region (English translation) is incorporated herein by reference to Exhibit 4.316 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.276	MTS License No. 161214 for provision of telecommunication services for provision of communication channels in the territory of Kemerovo region, Tomsk region (English translation) is incorporated herein by reference to Exhibit 4.317 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.277	MTS License No. 161216 for provision of mobile radio telephone services in the territory of Amur region, Buryatiya Republic, Chukotsk Autonomous region, Jewish Autonomous region, Irkutsk region, Kamchatka region, Khabarovsk Territory, Magadan region, Primorsky Territory, Sakha Republic (Yakutia), Sakhalin region, Zabaykalsky Territory (English translation) is incorporated herein by reference to Exhibit 4.319 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.278	MTS License No. 161217 for provision of data communication services excluding data communication services for the purposes of voice data communication in the territory of Krasnoyarsk Territory (English translation) is incorporated herein by reference to Exhibit 4.320 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.279	MTS License No. 161218 for provision of telecommunication services for provision of communication channels in the territory of Tatarstan Republic (English translation) is incorporated herein by reference to Exhibit 4.321 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.280	MTS License No. 161219 for provision of telecommunication services for provision of communication channels in the territory of Kalmykia Republic, Severnaya Osetia Alania Republic (English translation) is incorporated herein by reference to Exhibit 4.322 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.281	MTS License No. 161220 for provision of telecommunication services for provision of communication channels in the territory of Krasnoyarsk Territory (English translation) is incorporated herein by reference to Exhibit 4.323 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.282	MTS License No. 161221 for provision of telematic services in the territory of Krasnoyarsk Territory (English translation) is incorporated herein by reference to Exhibit 4.324 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.283	MTS License No. 161222 for provision of mobile radio telephone services in the territory of Krasnoyarsk Territory (English translation) is incorporated herein by reference to Exhibit 4.325 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.284	MTS License No. 161223 for provision of telecommunication services for provision of communication channels in the territory of Bashkortostan Republic (English translation) is incorporated herein by reference to Exhibit 4.326 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.285	MGTS License No. 161531 for provision of cable television in the territory of Moscow region (English translation) is incorporated herein by reference to Exhibit 4.327 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.286	MTS License No. 161954 for provision of intra zonal communications services in the territory of Tatarstan Republic (English translation) is incorporated herein by reference to Exhibit 4.328 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.287	MGTS License No. 161957 for provision of local telephone communication services using payphones in the territory of Moscow (English translation) is incorporated herein by reference to Exhibit 4.329 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.288	MGTS License No. 162566 for provision of mobile radio telephone services in the territory of Moscow, Moscow region (English translation) is incorporated herein by reference to Exhibit 4.330 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.289	MTS License No. 162597 for provision of telecommunications services for wired radio broadcasting in the territory of the Ryazan region (English translation) is incorporated herein by reference to Exhibit 4.399 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.290	MTS License No. 162943 for provision of mobile radio telephone communication services in the territory of the Astrakhan region (English translation) is incorporated herein by reference to Exhibit 4.400 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.291	MTS License No. 162944 for provision of mobile radio telephone communication services in the territory of the Penza region (English translation) is incorporated herein by reference to Exhibit 4.401 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017, on Form 20-F.
4.292	MTS License No. 163838 for provision of intra zonal communications services in the territory of Rostov region (English translation) is incorporated herein by reference to Exhibit 4.331 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.293	MTS License No. 163839 for provision of intra zonal communications services in the territory of Severnaya Osetia Alania Republic (English translation) is incorporated herein by reference to Exhibit 4.332 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.294	MTS License No. 163840 for provision of intra zonal communications services in the territory of Krasnodar territory (English translation) is incorporated herein by reference to Exhibit 4.333 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.295	MTS License No. 164187 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of Khanty Mansiysk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.334 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.296	MTS License No. 165418 for provision of radio telephone services in the territory of Khanty Mansiysk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.336 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.297	MTS License No. 166424 for provision of telecommunication services for provision of communication channels in the territory of Rostov region (English translation) is incorporated herein by reference to Exhibit 4.337 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.298	MTS License No. 166425 for provision of data communication services excluding data communication services for the purposes of voice data communication in the territory of Altai territory (English translation) is incorporated herein by reference to Exhibit 4.338 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.299	MGTS License No. 166443 for provision of leased communications circuits in the territory of Moscow, Moscow region (English translation) is incorporated herein by reference to Exhibit 4.339 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.300	MGTS License No. 166444 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of Moscow (English translation) is incorporated herein by reference to Exhibit 4.340 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.301	MGTS License No. 166445 for provision of data transmission services in the territory of Moscow (English translation) is incorporated herein by reference to Exhibit 4.341 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.302	MTS License No. 166704 for provision of mobile radio telephone services in the territory of Tyva Republic (English translation) is incorporated herein by reference to Exhibit 4.342 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.303	MTS License No. 166958 for provision of telecommunication services for provision of communication channels in the territory of Moscow, Moscow region, Komi Republic, Kostroma region, Tver region (English translation) is incorporated herein by reference to Exhibit 4.343 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.304	MTS License No. 167215 for provision of mobile radio telephone services in the territory of Russian Federation, except the Republic of Crimea, Sevastopol (English translation) is incorporated herein by reference to Exhibit 4.344 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.305	MTS License No. 167216 for provision of mobile radio telephone services in the territory of Novosibirsk region (English translation) is incorporated herein by reference to Exhibit 4.345 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.306	MTS License No. 167990 for provision of mobile radio telephone services in the territory of Altai territory (English translation) is incorporated herein by reference to Exhibit 4.346 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.307	MTS License No. 167991 for provision of mobile radio telephone services in the territory of Tomsk region (English translation) is incorporated herein by reference to Exhibit 4.347 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.308	MTS License No. 167992 for provision of telecommunication services for provision of communication channels in the territory of Russian Federation, except the Republic of Crimea, Sevastopol (English translation) is incorporated herein by reference to Exhibit 4.348 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.309	MTS License No. 168186 for provision of mobile radio telephone services in the territory of Astrakhan region (English translation) is incorporated herein by reference to Exhibit 4.349 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.310	MTS License No. 168309 for provision of cable radio in the territory of Saratov region (English translation) is incorporated herein by reference to Exhibit 4.350 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.311	MTS License No. 168612 for provision of mobile radio telephone services in the territory of Dagestan Republic (English translation) is incorporated herein by reference to Exhibit 4.351 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.312	MTS License No. 168613 for provision of mobile radio telephone services in the territory of Karachaevo-Cherkesia Republic (English translation) is incorporated herein by reference to Exhibit 4.352 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.313	MTS License No. 168614 for provision of mobile radio telephone services in the territory of Ulyanovsk region (English translation) is incorporated herein by reference to Exhibit 4.353 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.314	MTS License No. 168615 for provision of mobile radio telephone services in the territory of Stavropol territory (English translation) is incorporated herein by reference to Exhibit 4.354 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.315	MTS License No. 168616 for provision of mobile radio telephone services in the territory of Kemerovo region (English translation) is incorporated herein by reference to Exhibit 4.355 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.316	MTS License No. 168617 for provision of mobile radio telephone services in the territory of Kabardino-Balkar Republic (English translation) is incorporated herein by reference to Exhibit 4.356 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.317	MTS License No. 168618 for provision of mobile radio telephone services in the territory of Mordovia Republic (English translation) is incorporated herein by reference to Exhibit 4.357 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.318	MTS License No. 168619 for provision of local telecommunications services, except for local telecommunications services via coin-box telephones and multiple-access facilities in the territory of Kemerovo region (English translation) is incorporated herein by reference to Exhibit 4.358 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.319	MTS License No. 168620 for provision of mobile radio telephone services in the territory of Kalmykia Republic (English translation) is incorporated herein by reference to Exhibit 4.359 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.320	MTS License No. 168621 for provision of mobile radio telephone services in the territory of Altai Republic (English translation) is incorporated herein by reference to Exhibit 4.360 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.321	MTS License No. 168622 for provision of mobile radio telephone services in the territory of Tyva Republic (English translation) is incorporated herein by reference to Exhibit 4.361 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.322	MTS License No. 168623 for provision of mobile radio telephone services in the territory of Ingushetia Republic (English translation) is incorporated herein by reference to Exhibit 4.362 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.323	MTS License No. 168624 for provision of mobile radio telephone services in the territory of Chuvashia Republic (English translation) is incorporated herein by reference to Exhibit 4.363 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.324	MTS License No. 169190 for provision of cable radio in the territory of Krasnodar territory (English translation) is incorporated herein by reference to Exhibit 4.364 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.325	MTS License No. 169448 for provision of intra zonal communications services in the territory of Karelia Republic (English translation) is incorporated herein by reference to Exhibit 4.365 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.326	MTS License No. 169449 for provision of intra zonal communications services in the territory of Komi Republic (English translation) is incorporated herein by reference to Exhibit 4.366 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.327	MTS License No. 169450 for provision of intra zonal communications services in the territory of St. Petersburg (English translation) is incorporated herein by reference to Exhibit 4.367 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.328	MTS License No. 169451 for provision of international, national, intra zonal and local communications services in the territory of Kemerovo region (English translation) is incorporated herein by reference to Exhibit 4.368 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.329	MTS License No. 169452 for provision of intra zonal communications services in the territory of Vologda region (English translation) is incorporated herein by reference to Exhibit 4.369 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.330	MTS License No. 169453 for provision of intra zonal communications services in the territory of Novgorod region (English translation) is incorporated herein by reference to Exhibit 4.370 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.331	MTS License No. 169454 for provision of intra zonal communications services in the territory of Astrakhan region (English translation) is incorporated herein by reference to Exhibit 4.371 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.332	MTS License No. 169455 for provision of intra zonal communications services in the territory of Murmansk region (English translation) is incorporated herein by reference to Exhibit 4.372 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.333	MTS License No. 169456 for provision of intra zonal communications services in the territory of Arkhangelsk region (English translation) is incorporated herein by reference to Exhibit 4.373 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.334	MTS License No. 169457 for provision of intra zonal communications services in the territory of Kaliningrad region (English translation) is incorporated herein by reference to Exhibit 4.374 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.335	MGTS License No. 169794 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Moscow region (English translation) is incorporated herein by reference to Exhibit 4.397 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.336	MGTS License No. 169795 for provision of local telephone communication services, excluding local telephone communication services using payphones and shared-access facilities in the territory of the Moscow region (English translation) is incorporated herein by reference to Exhibit 4.398 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.337	MTS License No. 170007 for provision of mobile radio telephone services in the territory of Omsk region (English translation) is incorporated herein by reference to Exhibit 4.375 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.338	MTS License No. 170425 for provision of data transmission services for voice in the territory of Kemerovo region (English translation) is incorporated herein by reference to Exhibit 4.376 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.339	MTS License No. 170426 for provision of data transmission services for voice in the territory of Nizhny Novgorod region (English translation) is incorporated herein by reference to Exhibit 4.377 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.340	MTS License No. 170427 for provision of data transmission services for voice in the territory of Arkhangelsk region (English translation) is incorporated herein by reference to Exhibit 4.378 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.341	MTS License No. 170428 for provision of data transmission services for voice in the territory of Krasnoyarsk Territory (English translation) is incorporated herein by reference to Exhibit 4.379 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.342	MTS License No. 170429 for provision of data transmission services for voice in the territory of Novgorod region (English translation) is incorporated herein by reference to Exhibit 4.380 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.343	MTS License No. 170430 for provision of data transmission services for voice in the territory of Omsk region (English translation) is incorporated herein by reference to Exhibit 4.381 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.344	MTS License No. 170431 for provision of data transmission services for voice in the territory of Novosibirsk region (English translation) is incorporated herein by reference to Exhibit 4.382 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.345	MTS License No. 170432 for provision of data transmission services for voice in the territory of Tula region (English translation) is incorporated herein by reference to Exhibit 4.383 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.346	MTS License No. 170433 for provision of intra zonal communications services in the territory of Kurgan region (English translation) is incorporated herein by reference to Exhibit 4.384 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.347	MTS License No. 170434 for provision of data transmission services for voice in the territory of Smolensk region (English translation) is incorporated herein by reference to Exhibit 4.385 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.348	MTS License No. 170435 for provision of data transmission services for voice in the territory of Leningrad region (English translation) is incorporated herein by reference to Exhibit 4.386 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.349	MTS License No. 170436 for provision of data transmission services for voice in the territory of Volgograd region (English translation) is incorporated herein by reference to Exhibit 4.387 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.350	MTS License No. 170616 for provision of mobile radio telephone services in the territory of Bashkortostan Republic (English translation) is incorporated herein by reference to Exhibit 4.388 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.351	MTS License No. 170831 for provision of intra zonal communications services in the territory of Volgograd region (English translation) is incorporated herein by reference to Exhibit 4.389 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.352	MTS License No. 171610 for provision of mobile radio telephone services in the territory of Kirov region, Orenburg region, Perm region, Udmurt Republic, Chelyabinsk region, Khanty Mansiysk Autonomous region, Kurgan region, Sverdlovsk region, Tyumen region, YamaloNenetsk Autonomous region (English translation) is incorporated herein by reference to Exhibit 4.390 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.353	MTS License No. 171678 for provision of cable radio in the territory of Novosibirsk region (English translation) is incorporated herein by reference to Exhibit 4.391 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.354	MTS License No. 172049 for provision of mobile radio telephone services in the territory of Bashkortostan Republic (English translation) is incorporated herein by reference to Exhibit 4.393 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.

Exhibits No.	Description
4.355	MTS License No. 172367 for provision of mobile radio telephone services in the territory of Zabaykalsky Territory (English translation) is incorporated herein by reference to Exhibit 4.394 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.356	MTS License No. 172368 for provision of mobile radio telephone services in the territory of Volgograd region (English translation) is incorporated herein by reference to Exhibit 4.395 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.357	MTS License No. 172369 for provision of cable radio in the territory of Vologda region (English translation) is incorporated herein by reference to Exhibit 4.396 to the Annual Report filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2018, on Form 20-F.
4.358	Oblachny Retail License No. 135699 for provision of telematic services in the territory of Russian Federation (English translation).
4.359	MTS License No. 145057 for provision of mobile radio telephone services in the territory of Astrahan region (English translation).
4.360	RIKT License No. 147828 for provision of local telephone communication services, excluding local telephone communication services using coin-box telephones and public access services in the territory of Kemerovo region (Mezhdurechensk) (English translation).
4.361	MKS Balashikha License No. 149923 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of Moscow region (Balashikha) (English translation).
4.362	MKS Balashikha License No. 149924 for provision of telecommunication services for Cable Broadcasting in the territory of Moscow region (Balashikha) (English translation).
4.363	MKS Balashikha License No. 149925 for provision of telematic services in the territory of Moscow region (Balashikha) (English translation).
4.364	MTS License No. 154795 for provision of mobile radio telephone services in the territory of Penza region (English translation).
4.365	MKS Balashikha License No. 156128 for provision of telecommunication services for provision of communication channels in the territory of Moscow region (Balashikha) (English translation).
4.366	Navigation Information Systems JSC License No. 161285 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of Russian Federation (English translation).
4.367	Navigation Information Systems License No. 161286 for provision of telematic services in the territory of Russian Federation (English translation).
4.368	NVision Group License No. 164415 for provision of telematic services in the territory of Moscow (English translation).
4.369	RIKT License No. 164770 for provision of telecommunication services for Cable Broadcasting in the territory of Kemerovo region (Mezhdurechensk) (English translation).

Exhibits No.	Description
4.370	RIKT License No. 164771 for provision of telecommunication services for provision of communication channels in the territory of Kemerovo region (Mezhdurechensk) (English translation).
4.371	Progressivniye Technologii License No. 169309 for provision of telecommunication services for provision of communication channels in the territory of Moscow, Moscow region (English translation).
4.372	Progressivniye Technologii License No. 169311 for provision of local telephone communication services, excluding local telephone communication services using coin-box telephones and public access services in the territory of Moscow region (English translation).
4.373	Progressivniye Technologii License No. 169314 for provision of telematic services in the territory of Moscow, Moscow region (English translation).
4.374	Progressivniye Technologii License No. 169315 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of Moscow, Moscow region (English translation).
4.375	RIKT License No. 172078 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of Kemerovo region (Mezhdurechensk) (English translation).
4.376	RIKT License No. 172079 for provision of telematic services in the territory of Kemerovo region (Mezhdurechensk) (English translation).
4.377	MTS License No. 172247 for provision of telematic services in the territory of Zabaykalsky Territory (English translation).
4.378	MTS License No. 172248 for provision of cable radio services in the territory of Sverdlovsk region (English translation).
4.379	MTS License No. 172249 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of Zabaykalsky Territory (English translation).
4.380	MTS License No. 173071 for provision of mobile radio telephone services in the territory of KabardinoBalkar Republic (English translation).
4.381	MTS License No. 173072 for provision of mobile radio telephone services in the territory of Chechen Republi? (English translation).
4.382	MTS License No. 173073 for provision of telecommunication services for provision of communication channels in the territory of Belgorod region, Bryansk region, Kursk region, Lipetsk region, Orel region, Voronezh region (English translation).
4.383	MTS License No. 173165 for provision of cable radio services in the territory of Yaroslavl region (English translation).
4.384	MTS License No. 173166 for provision of cable radio services in the territory of Ivanovo region (English translation).
4.385	MTS License No. 173482 for provision of Intrazonal communications services in the territory of Belgorod region (English translation).
4.386	Progressivniye Technologii License No. 173864 for provision of telecommunication services for Cable Broadcasting in the territory of Moscow region (English translation).

Exhibits No.	Description
4.387	Progressivniye Technologii License No. 173865 for provision of data transmission services for voice in the territory of Moscow, Moscow region (English translation).
4.388	Progressivniye Technologii License No. 173867 for provision of cable radio services in the territory of Moscow region (English translation).
4.389	MTS License No. 174038 for provision of telecommunication services for provision of communication channels in the territory of Chukotsk Autonomous region (English translation).
4.390	MTS License No. 174356 for provision of Intrazonal communications services in the territory of Nizhny Novgorod region (English translation).
4.391	MTS License No. 174442 for provision of cable radio services in the territory of Irkutsk region (English translation).
4.392	MTS License No. 174800 for provision of mobile radio telephone services in the territory of Belgorod region (English translation).
4.393	Stream License No. 175178 for provision of telematic services in the territory of Russian Federation (English translation).
4.394	MTS License No. 175252 for provision of telecommunication services for provision of communication channels in the territory of Jewish Autonomous region (English translation).
4.395	MTS License No. 175253 for provision of cable radio services in the territory of Nizhny Novgorod region (English translation).
4.396	ProgTech-Yug License No. 175482 for provision of telecommunication services for provision of communication channels in the territory of Krasnodar territory (English translation).
4.397	ProgTech-Yug License No. 175484 for provision of data transmission services for voice in the territory of Krasnodar territory (English translation).
4.398	ProgTech-Yug License No. 175485 for provision of cable radio services in the territory of Krasnodar territory (English translation).
4.399	MTS License No. 176259 for provision of data transmission services for voice in the territory of Tver region (English translation).
4.400	MTS License No. 176260 for provision of telecommunication services for Cable Broadcasting in the territory of Russian Federation (English translation).
4.401	MTS License No. 176556 for provision of data transmission services for voice in the territory of Samara region (English translation).
4.402	MTS License No. 176557 for provision of data transmission services for voice in the territory of Astrakhan region (English translation).
4.403	MTS License No. 176558 for provision of Intrazonal communications services in the territory of Samara region (English translation).
4.404	MTS License No. 176559 for provision of data transmission services for voice in the territory of Tambov region (English translation).

Exhibits No.	Description
4.405	ProgTech-Yug License No. 176677 for provision of local telephone communication services, excluding local telephone communication services using coin-box telephones and public access services in the territory of Krasnodar territory (English translation).
4.406	ProgTech-Yug License No. 176678 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of Krasnodar territory (English translation).
4.407	ProgTech-Yug License No. 176679 for provision of telematic services in the territory of Krasnodar territory (English translation).
4.408	MTS License No. 176685 for provision of Intrazonal communications services in the territory of Kursk region (English translation).
4.409	MTS License No. 176686 for provision of cable radio services in the territory of St. Petersburg, Leningrad region (English translation).
4.410	Sputnikovoe TV License No. 176892 for provision of telecommunication services for provision of communication channels in the territory of Russian Federation (English translation).
4.411	Sputnikovoe TV License No. 176894 for provision of communication services for the purpose of broadcasting in the territory of Moscow, Moscow region, St. Petersburg, Leningrad region, Adygeya Republic, Arkhangelsk region, Astrahansk region, Bashkortostan Republic, Belgorod region, Bryansk region, Chuvashia Republic, Dagestan Republic, Ivanovo region, Ingushetia Republic, KabardinoBalkar Republic, Kaliningrad region, Kalmykia Republic, Kaluga region, KarachaevoCherkesia Republic, Karelia Republic, Kirov region, Komi Republic , Kostroma region, Krasnodar territory, Kursk region, Lipetsk region, Mari El Republic, Mordovia Republic, Murmansk region, Nizhny Novgorod region, Novgorod region, Orel region, Orenburg region, Perm region, Rostov region, Pskov region, Ryazan region, Samara region, Saratov region, Severnaya Osetia Alania Republic, Smolensk region, Stavropol territory, Tambov region, Tatarstan Republic, Tula region, Tver region, Udmurt Republic, Ulyanovsk region, Vladimir region, Volgograd region, Vologda region, Voronezh region, Yaroslavl region, Altaisk territory, Altai Republic, Amur region, Buryatiya Republic, Chelyabinsk region, Jewish Autonomous region, Irkutsk region, Kemerov region, Khabarovsk Territory, Khakassiya Republic, Khanty Mansiysk Autonomous region, Krasnoyarsk Territory, Kurgan region, Novosibirsk region, Omsk region, Primorsky Territory, Sakha Republic (Yakutia), Sakhalin region, Sverdlovsk region, Tomsk region, Tyumen region, Tyva Republic, YamaloNenetsk Autonomous region, Chechen Republi?, Zabaykalsky Territory, Penza region, Krym Republic, Sevastopol, Nenetsk Autonomous region, Magadan region (English translation).
4.412	MTS License No. 177389 for provision of data transmission services for the purpose of voice transmission in the territory of St. Petersburg (English translation).
4.413	MTS License No. 177489 for provision of mobile radio telephone communication services in the allocated telecommunications network in the territory of Kemerovo region (English translation).
4.414	MTS License No. 177989 for provision of mobile radio telephone services in the territory of Khakassiya Republic (English translation).
4.415	MTS License No. 178568 for provision of local, international and intercity phone communication service in the territory of the Russian Federation (English translation).

Exhibits No.	Description
4.416	MTS License No. 178740 for provision of mobile radio telephone services in the territory of Magadan region (English translation).
4.417	MTS License No. 178741 for provision of mobile radio telephone communication services in the allocated telecommunications network in the territory of Tyumen region (English translation).
4.418	MTS License No. 178742 for provision of mobile radio telephone communication services in the allocated telecommunications network in the territory of Zabaykalsky Territory (English translation).
4.419	MTS License No. 178743 for provision of mobile radio telephone communication services in the allocated telecommunications network in the territory of Irkutsk region (English translation).
4.420	MTS License No. 178744 for provision of mobile radio telephone communication services in the allocated telecommunications network in the territory of Tatarstan Republic (English translation).
4.421	MTS License No. 179430 for provision of cable radio services in the territory of Smolensk region (English translation).
4.422	Sibintertelecom License No. 179528 for provision of mobile radio telephone services in the territory of Zabaykalsky Territory (English translation).
4.423	Sibintertelecom License No. 179529 for provision of telecommunication services for provision of communication channels in the territory of Zabaykalsky Territory (English translation).
4.424	Sibintertelecom License No. 179530 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of Zabaykalsky Territory (English translation).
4.425	Sibintertelecom License No. 179532 for provision of telematic services in the territory of Zabaykalsky Territory (English translation).
4.426	MTS License No. 179661 for provision of data transmission services, except for data transmission services for the purpose of voice transmission in the territory of the Penza region (English translation).
4.427	MTS License No. 179662 for provision of communication services for the purpose of wire broadcasting in the territory of the Perm Territory (English translation).
4.428	MTS License No. 179663 for provision of telematic communication services in the territory of the Penza region (English translation).

Exhibits No.	Description
4.429	MTS License No. 181284 for provision of mobile radio telephone services in the territory of Sakha Republic (Yakutia), No. 182244 for provision of mobile radio telephone services in the territory of Khabarovsk Territory, No. 182245 for provision of mobile radio telephone services in the territory of Krasnoyarsk Territory, No. 182246 for provision of mobile radio telephone services in the territory of Tyva Republic, No. 182247 for provision of mobile radio telephone services in the territory of Perm Region, No. 182248 for provision of mobile radio telephone services in the territory of Buryatiya Republic, No. 182249 for provision of mobile radio telephone services in the territory of Komi Republic, No. 182251 for provision of mobile radio telephone services in the territory of Omsk Region, No. 182250 for provision of telecommunications services for broadcasting in the territory of Udmurt Republic (English summary).
4.430	MTS Bank License No. 177-046113-100000 for carrying out broker activity (English translation).
4.431	MTS Bank General Banking License No. 2268 (English translation).
4.432	MTS Bank License No. 177-04660-000100 for carrying out depositary activity (English translation).
4.433	MTS Bank License No. 177-04635-010000 for carrying out dealer activity (English translation).
4.434	MTS Bank License No. 0016453 for carrying out development, production, distribution of encryption (cryptographic) facilities, information and telecommunication systems, which are protected with encryption (cryptographic) facilities, for works and services in the field of data encryption, technical support services of encryption (cryptographic) facilities, information and telecommunication systems, which are protected with encryption (cryptographic) facilities (except where technical support services of encryption (cryptographic) facilities, information and telecommunication systems, which are protected with encryption (cryptographic) facilities, are performed for the own needs of the legal entity or individual entrepreneur) (English translation).
8.1	List of Subsidiaries of Mobile TeleSystems Public Joint Stock Company.
12.1	Certification by the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
12.2	Certification by the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
13.1	Certification by the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
13.2	Certification by the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

<u>Exhibits No.</u>	<u>Description</u>
101	The following financial information formatted in Extensive Business Reporting Language (XBRL): (i) Consolidated statements of financial position as of December 31, 2019 and 2018, (ii) Consolidated statements of profit or loss for the years ended December 31, 2019, 2018 and 2017, (iii) Consolidated statements of comprehensive income for the years ended December 31, 2019, 2018 and 2017, (iv) Consolidated statements of changes in shareholders' equity for the years ended December 31, 2019, 2018 and 2017, (v) Consolidated statements of cash flows for the years ended December 31, 2019, 2018 and 2017, and (vi) Notes to the consolidated financial statements.

* Approved by General Meeting of Shareholders of Mobile TeleSystems Public Joint Stock Company held Orty 28, 2018 and became effective upon registration with the Federal Tax Service on July 11, 2018.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Date: April 23, 2020

MOBILE TELESYSTEMS PUBLIC JOINT STOCK
COMPANY

By: /s/ Alexey V. Kornya

Name: Alexey V. Kornya

Title: President and Chief Executive Officer

**PJSC MOBILE
TELESYSTEMS
AND SUBSIDIARIES**

Consolidated Financial Statements

As of December 31, 2019, 2018 and for the Years Ended
December 31, 2019, 2018 and 2017.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Mobile TeleSystems PJSC

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of Mobile TeleSystems PJSC and subsidiaries (the “Group”) as of December 31, 2019 and 2018, the related consolidated statements of profit or loss, comprehensive income, changes in shareholders’ equity, and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Group as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Group’s internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 12, 2020 expressed an unqualified opinion on the Group’s internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Group’s management. Our responsibility is to express an opinion on the Group’s consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue Recognition—Refer to Note 6 to the consolidated financial statements

Critical Audit Matter Description

The Group's revenue from telecommunication services consists of a significant volume of low-value transactions, sourced from multiple systems, databases, and other tools, including billing systems. The processing and recording of revenue is highly automated and is based on established tariff plans.

We identified the revenue recognition for telecommunications services as a critical audit matter due to the complexity of information systems involved in the process of revenue recognition and the risks associated with recognition and measurement of revenue, arising from the diversity and constant evolution of tariff plans, marketing offers and discounts provided to customers. This required an increased extent of audit effort, including the need for us to involve professionals with expertise in information technology (IT), to identify, test, and evaluate the Group's systems, software applications, and automated controls.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the Group's revenue from telecommunication services included the following, among others:

- analysis of IT environment that secures proper functioning of billing and other IT systems related to accounting, including control procedures for monitoring changes and segregation of duties, as well as testing of these controls;
- testing of the design and the effectiveness of internal controls over revenue recognition, including: recording and registration of phone calls, call duration, provision of data and value added services; authorization of changes in tariff plans and input of this information into the billing systems; correctness of the application of incentive arrangements and discounts;
- end-to-end testing of reconciliation of data on the duration and volume of provided telecommunication services from their initial registration by switching equipment to billing and other IT systems and then to accounting records, including testing of certain manual adjustments recorded when transferring data from billing and other IT systems to the general ledger;
- using test calls to test the correctness of the details of connections, their duration and the tariff plans applied;
- testing of whether incentive arrangements and discounts were correctly accounted for in accordance with the relevant accounting policies of the Group; and
- testing to verify that the information on active tariffs entered in the billing systems agree to the approved tariff orders and published tariff plans.

We have also reviewed the Group's accounting policy with respect to the recognition of revenue from the provision of services to subscribers and ensured that the existing policy is both appropriate for new types of operations and applied correctly, and assessed the compliance of the disclosures in the consolidated financial statements with the requirements of IFRS 15, *Revenue from Contracts with Customers*.

Assessment and measurement of expected credit losses on loans to customers—Refer to Note 28 to the consolidated financial statements

Critical Audit Matter Description

The Group is required to use an ‘expected loss’ model to determine the impairment of loans to customers of MTS Bank. Due to the underlying assumptions and estimations, the determination of expected credit losses is inherently subject to substantial judgement applied by management.

Key areas of judgment and estimates related to the assessment of allowances for expected credit losses on loans to customers included the following:

- determination of the impairment stage for loans assessed on an individual basis which is based on timely identification of default events and significant increases in credit risk;
- evaluation of the probability of default of loans assessed on an individual basis at the first and the second stages of impairment as well as loans assessed on a collective basis.

We identified this area as a critical audit matter because models and techniques used in identifying significant increases in credit risk and for calculating expected credit losses requires the use of data from both external and internal sources, as well as the application of complex and subjective judgments by management. Therefore, a high degree of auditor judgment and an increased extent of effort was required, including the need to involve our internal actuarial specialists, to perform audit procedures carried out to evaluate the reasonableness of management’s estimate of the allowance for loan losses.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the assessment and measurement of expected credit losses of loans to customers included the following, among others:

- testing the design and the effectiveness of internal controls over the correct classification of the loan portfolio between stages of credit risk and the use of appropriate key assumptions on the assessment of probability of default for loans to customers;
- assessment of the methodology, models and techniques used by the Group’s management to determine expected credit losses for compliance with requirements of IFRS 9, *Financial Instruments*;
- testing of the completeness and accuracy of data, including historical data, using external and internal information;
- for individually assessed loans, obtaining the Group’s schedule classifying all borrowers between stages of credit risk and, based on information from open sources, on a sample basis, testing that borrowers with default indicators were appropriately classified for the purposes of the expected credit loss calculation;
- for evaluation of probability of default of individually assessed loans, with the involvement of our internal actuarial specialists, obtaining the validation report and testing of the outcome of the model against observed losses, as well as performing an analysis of the alternative appropriate ranges of probability of defaults; and
- for collectively assessed loans, with the assistance of our internal actuarial specialists, performing an analysis of the integrity of the models and verifying the most critical underlying assumptions against historical data and recent trends of default ratios.

We also assessed the compliance of the disclosures in the consolidated financial statements with the requirements of IFRS 9, *Financial Instruments*.

/s/ AO Deloitte & Touche CIS

Moscow, Russia

March 12, 2020

We have served as the Group’s auditor since 2002.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
AS OF DECEMBER 31, 2019 AND 2018
(Amounts in millions of Russian Rubles)

	<u>Notes</u>	<u>December 31, 2019</u>	<u>December 31, 2018</u>
ASSETS			
NON-CURRENT ASSETS:			
Property, plant and equipment	19	265,479	276,443
Investment property		2,986	2,177
Right-of-use assets	24	138,817	149,007
Goodwill	20	38,675	39,107
Other intangible assets	22	79,729	95,962
Investments in associates and joint ventures	15	6,450	10,735
Other investments	16	11,195	16,873
Deferred tax assets	11	9,975	11,190
Accounts receivable, related parties	30	10,787	2,545
Trade accounts receivable	17	3,556	2,600
Bank deposits and loans to customers	28	53,472	30,653
Other financial assets	27	3,220	4,729
Other assets		4,981	5,038
Total non-current assets		<u>629,322</u>	<u>647,059</u>
CURRENT ASSETS:			
Inventories	18	15,515	18,654
Trade and other receivables	17	35,595	34,543
Accounts receivable, related parties	30	5,872	6,385
Bank deposits and loans to customers	28	39,370	32,385
Short-term investments	14	25,618	47,863
Advances paid and prepaid expenses		4,107	4,208
VAT receivable		9,350	7,415
Income tax assets		4,301	3,887
Assets held for sale		497	2,694
Cash and cash equivalents	13	38,070	84,075
Other financial assets	27	14,558	25,487
Other assets		1,735	1,338
Total current assets		<u>194,588</u>	<u>268,934</u>
TOTAL ASSETS		<u>823,910</u>	<u>915,993</u>

The accompanying notes are an integral part of these consolidated financial statements.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION (Continued)
AS OF DECEMBER 31, 2019 AND 2018
(Amounts in millions of Russian Rubles)

	<u>Notes</u>	<u>December 31, 2019</u>	<u>December 31, 2018</u>
EQUITY AND LIABILITIES			
EQUITY:			
Common stock	31	200	200
Treasury stock	31	(59,748)	(44,808)
Additional paid-in capital		—	—
Retained earnings		85,249	110,946
Accumulated other comprehensive income/(loss)	31	7,367	(1,064)
Equity attributable to owners of the Company		33,068	65,274
Non-controlling interests		3,326	12,291
Total equity		<u>36,394</u>	<u>77,565</u>
NON-CURRENT LIABILITIES:			
Borrowings	23	271,573	365,072
Lease obligations	24	140,080	144,740
Bank deposits and liabilities	28	1,805	2,633
Deferred tax liabilities	11	17,866	24,439
Provisions	26	4,761	3,391
Contract liabilities	6	589	558
Other financial liabilities	27	955	481
Other liabilities		1,430	1,643
Total non-current liabilities		<u>439,059</u>	<u>542,957</u>
CURRENT LIABILITIES:			
Trade and other payables		71,808	53,623
Accounts payable, related parties	30	558	1,301
Contract liabilities	6	20,718	21,597
Borrowings	23	71,746	3,063
Lease obligations	24	15,228	15,812
Bank deposits and liabilities	28	136,147	108,821
Income tax liabilities		784	1,792
Provisions	26	11,526	70,911
Other financial liabilities	27	1,424	4,648
Other liabilities		18,518	13,903
Total current liabilities		<u>348,457</u>	<u>295,471</u>
TOTAL EQUITY AND LIABILITIES		<u>823,910</u>	<u>915,993</u>

The accompanying notes are an integral part of these consolidated financial statements.

President and CEO

Vice-president, Finance

_____ Alexey V. Kornya

_____ Andrey M. Kamensky

March 12, 2020

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF PROFIT OR LOSS
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017
(Amounts in millions of Russian Rubles, except per share amounts)

	<u>Notes</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Service revenue		406,839	382,698	365,830
Sales of goods		69,267	68,768	52,088
Revenue	5,6	476,106	451,466	417,918
Cost of services		114,995	104,929	115,656
Cost of goods	18	63,889	63,253	45,475
Selling, general and administrative expenses	7	90,796	83,427	90,349
Depreciation and amortization	5	96,279	95,386	73,940
Operating share of the profit of associates and joint ventures	15	(4,583)	(3,799)	(3,210)
Impairment of non-current assets	21	(148)	149	3,775
Impairment of financial assets		7,756	3,661	2,903
Other income		(7,066)	(4,561)	(1,211)
Operating profit	5	114,188	109,021	90,241
Finance income	8	(4,356)	(5,587)	(5,255)
Finance costs	8	47,368	36,988	26,011
Currency exchange (gain) / loss		(2,106)	4,043	(818)
Non-operating share of the (profit) / loss of associates and joint ventures	15	(3,496)	909	436
Change in fair value of financial instruments		7,455	(5,385)	(110)
Other expenses		2,450	934	990
Profit before tax		66,873	77,119	68,987
Income tax expense	11	15,750	15,395	17,780
Profit for the year from continuing operations		51,123	61,724	51,207
(Profit) / loss from discontinued operations	10, 33	(3,976)	53,892	(5,383)
Profit for the year		55,099	7,832	56,590
Profit for the year attributable to:				
Owners of the Company		54,241	6,848	56,042
Non-controlling interests		858	984	548
Earnings per share from continuing operations (basic and diluted), Russian Rubles:	12	28.22 and 28.18	32.42 and 32.38	26.21 and 26.19
Earnings per share from discontinued operations (basic and diluted), Russian Rubles:	12	2.23 and 2.23	(28.76) and (28.73)	2.76 and 2.75

The accompanying notes are an integral part of these consolidated financial statements.

President and CEO

Alexey V. Kornya

Vice-president, Finance

Andrey M. Kamensky

March 12, 2020

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016
(Amounts in millions of Russian Rubles)

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Profit for the year	55,099	7,832	56,590
Other comprehensive income			
<i>Items that will not be reclassified subsequently to profit or loss:</i>			
Unrecognized actuarial gain / (loss)	—	167	(40)
<i>Items that may be reclassified subsequently to profit or loss:</i>			
Reclassification to profit and loss due to Disposal of VF Ukraine (Note 10)	7,947	—	—
Exchange differences on translating foreign operations	1,134	7,416	(2,469)
Net fair value (loss) / gain on financial instruments	(237)	(103)	495
Share of other comprehensive (loss) / income of associates			
<i>Items that may be reclassified subsequently to profit or loss:</i>			
Exchange differences on translating foreign operations in associates	(413)	319	(810)
Other comprehensive income / (loss) for the year, net of income tax	<u>8,431</u>	<u>7,799</u>	<u>(2,824)</u>
Total comprehensive income for the year	<u>63,530</u>	<u>15,631</u>	<u>53,766</u>
Total comprehensive income for the year attributable to:			
Owners of the Company	62,672	14,638	53,218
Non-controlling interests	858	993	548

The accompanying notes are an integral part of these consolidated financial statements.

President and CEO

Alexey V. Kornya

Vice-president, Finance

Andrey M. Kamensky

March 12, 2020

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017
(Amounts in millions of Russian Rubles, except share amounts)

	Common stock		Treasury stock		Additional paid-in capital	Accumulated other comprehensive income / (loss)			Retained earnings	Equity attributable to equity holders	Non-controlling interests	Total equity
	Shares	Amount	Shares	Amount		Cash flow hedging reserve	Foreign currency translation reserve	Remeasurements of the net defined benefit liability				
	Balances at January 1, 2017	1,998,381,575	200	(11,482,047)		(748)	191	(155)				
Profit for the year	—	—	—	—	—	—	—	—	56,042	56,042	548	56,590
Other comprehensive (loss) / income for the year, net of income tax	—	—	—	—	—	495	(2,620)	(40)	—	(2,165)	—	(2,165)
Disposal of East-West United Bank by MTS Bank, the Group's associate (Note 15)	—	—	—	—	—	—	(659)	—	—	(659)	—	(659)
Total comprehensive (loss) / income for the year	—	—	—	—	—	495	(3,279)	(40)	56,042	53,218	548	53,766
Exercise of stock options	—	—	851,275	—	240	—	—	—	—	240	—	240
Dividends declared by MTS	—	—	—	—	—	—	—	—	(50,621)	(50,621)	—	(50,621)
Dividends to non-controlling interests	—	—	—	—	—	—	—	—	—	—	(1,175)	(1,175)
Purchase of own stock (Note 31)	—	—	(75,708,384)	(21,896)	—	—	—	—	—	(21,896)	—	(21,896)
Purchase of non-controlling interests	—	—	—	—	(2)	—	—	—	—	(2)	(7)	(9)
Changes in ownership interest with no gain / loss of control	—	—	—	—	(48)	—	—	—	—	(48)	—	(48)
Balances at December 31, 2017	1,998,381,575	200	(86,339,156)	(22,644)	381	340	(9,697)	503	151,043	120,126	4,079	124,205
Adjustment on initial application of IFRS 15 (net of tax)	—	—	—	—	—	—	—	—	2,528	2,528	17	2,545
Adjustment on initial application of IFRS 9 (net of tax)	—	—	—	—	—	—	—	—	1,367	1,367	—	1,367
Adjusted balance at January 1, 2018	—	—	—	—	—	—	—	—	154,938	124,021	4,096	128,117
Profit for the year	—	—	—	—	—	—	—	—	6,848	6,848	984	7,832
Unrecognized actuarial gain	—	—	—	—	—	—	—	167	—	167	—	167
Currency translation adjustment	—	—	—	—	—	—	7,726	—	—	7,726	9	7,735
Net fair value (loss) / gain on financial instruments	—	—	—	—	—	(103)	—	—	—	(103)	—	(103)
Total comprehensive (loss) / income for the year	—	—	—	—	—	(103)	7,726	167	6,848	14,638	993	15,631
Issuance of stock options	—	—	—	—	675	—	—	—	—	675	—	675
Exercise of stock options	—	—	1,369,303	403	(403)	—	—	—	—	—	—	—
Dividends declared by MTS	—	—	—	—	—	—	—	—	(48,921)	(48,921)	—	(48,921)
Dividends to non-controlling interests	—	—	—	—	—	—	—	—	—	—	(1,165)	(1,165)
Purchase of own stock (Note 31)	—	—	(82,669,046)	(22,567)	(4)	—	—	—	—	(22,571)	—	(22,571)
Purchase of non-controlling interests	—	—	—	—	(97)	—	—	—	—	(97)	47	(50)
Acquisitions under common control	—	—	—	—	(2,471)	—	—	—	—	(2,471)	8,320	5,849
Reclass to retained earnings	—	—	—	—	1,919	—	—	—	(1,919)	—	—	—
Balances at December 31, 2018	1,998,381,575	200	(167,638,899)	(44,808)	—	237	(1,971)	670	110,946	65,274	12,291	77,565

The accompanying notes are an integral part of these consolidated financial statements.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Continued)
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017
(Amounts in millions of Russian Rubles, except share amounts)

	Common stock		Treasury stock		Additional paid-in capital	Accumulated other comprehensive income / (loss)			Retained earnings	Equity attributable to equity holders	Non-controlling interests	Total equity
	Shares	Amount	Shares	Amount		Cash flow hedging reserve	Foreign currency translation reserve	Remeasurements of the net defined benefit liability				
Balances at December 31, 2018	1,998,381,575	200	(167,638,899)	(44,808)	—	237	(1,971)	670	110,946	65,274	12,291	77,565
Profit for the year	—	—	—	—	—	—	—	—	54,241	54,241	858	55,099
Disposal of VF Ukraine (Note 10)	—	—	—	—	—	—	7,947	—	—	7,947	—	7,947
Currency translation adjustment	—	—	—	—	—	—	721	—	—	721	—	721
Net fair value (loss) / gain on financial instruments	—	—	—	—	—	(237)	—	—	—	(237)	—	(237)
Total comprehensive (loss) / income for the year	—	—	—	—	—	(237)	8,668	—	54,241	62,672	858	63,530
Issuance of stock options	—	—	—	—	872	—	—	—	—	872	—	872
Exercise of stock options	—	—	3,610,561	982	(1,060)	—	—	—	—	(78)	—	(78)
Dividends declared by MTS	—	—	—	—	—	—	—	—	(74,302)	(74,302)	—	(74,302)
Dividends to non-controlling interests	—	—	—	—	—	—	—	—	—	—	(1,123)	(1,123)
Purchase of own stock (Note 31)	—	—	(61,519,084)	(15,922)	—	—	—	—	—	(15,922)	—	(15,922)
Purchase of non-controlling interests	—	—	—	—	(4,162)	—	—	—	—	(4,162)	(8,700)	(12,862)
Acquisitions under common control (Note 4)	—	—	—	—	(1,286)	—	—	—	—	(1,286)	—	(1,286)
Reclass to retained earnings	—	—	—	—	5,636	—	—	—	(5,636)	—	—	—
Balances at December 31, 2019	1,998,381,575	200	(225,547,422)	(59,748)	—	—	6,697	670	85,249	33,068	3,326	36,394

The accompanying notes are an integral part of these consolidated financial statements.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017
(Amounts in millions of Russian Rubles)

	<u>2019</u>	<u>2018</u>	<u>2017</u>
CASH FLOWS FROM OPERATING ACTIVITIES:			
Profit for the year	55,099	7,832	56,590
Adjustments for:			
Depreciation and amortization	106,948	104,588	79,912
Impairment of non-current assets	(148)	149	3,775
Impairment of financial assets	7,761	3,694	2,923
Loss from sale of Ukraine operations (Note 10)	5,499	—	—
Provision related to SEC investigation (Note 33)	—	55,752	—
Finance income	(4,805)	(5,981)	(5,548)
Finance costs	48,711	38,165	26,064
Income tax expense	17,671	16,969	18,977
Currency exchange (gain)/loss	(5,628)	6,892	(1,301)
Share of profit of associates	(8,079)	(2,890)	(2,774)
Change in fair value of financial instruments	7,412	(5,384)	(110)
Inventory obsolescence expense	2,207	3,326	2,179
Change in provisions	305	(1,474)	1,556
Other non-cash items	(6,882)	(3,479)	(657)
Movements in operating assets and liabilities:			
(Increase) / Decrease in trade and other receivables	(3,808)	438	(3,514)
Increase in bank deposits and loans to customers	(34,452)	(15,367)	—
Decrease / (Increase) in inventory	3	(11,292)	2,200
Decrease in advances paid and prepaid expenses	3,478	1,429	1,197
(Increase) / Decrease in VAT receivable	(2,522)	72	(1,145)
Increase / (Decrease) in trade and other payables and other current liabilities	6,825	(58)	3,200
Increase in bank deposits and liabilities	27,823	4,100	—
Fines and penalties related to investigation into former operations in Uzbekistan (Note 33)	(55,607)	—	—
Dividends received	3,707	3,726	3,590
Income tax paid	(23,943)	(19,777)	(22,427)
Interest received	5,263	10,016	3,319
Interest paid, net of interest capitalized	(46,186)	(37,056)	(23,366)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>106,652</u>	<u>154,390</u>	<u>144,640</u>

The accompanying notes are an integral part of these consolidated financial statements.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017
(Amounts in millions of Russian Rubles)

	<u>2019</u>	<u>2018</u>	<u>2017</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of subsidiaries, net of cash acquired (Note 4)	(2,052)	(3,444)	(367)
Purchases of property, plant and equipment (including capitalized interest in the amount of RUB 550 million, RUB 460 million and RUB 307 million, respectively)	(68,465)	(64,731)	(53,366)
Purchases of other intangible assets	(23,016)	(21,751)	(23,065)
Purchase of Avantage	—	(7,559)	—
Purchase of 3G and 4G licenses in Armenia and Ukraine	(255)	(5,527)	—
Cost to obtain and fulfill contracts, paid	(4,651)	(4,764)	—
Proceeds from sale of property, plant and equipment and assets held for sale	6,536	5,905	4,343
Purchases of short-term and other investments	(22,714)	(18,754)	(33,717)
Proceeds from sale of short-term and other investments	47,139	38,596	25,385
Investments in associates (Note 15)	(75)	(3,871)	(723)
Cash (payments) and proceeds related to swap contracts	(2,459)	6,892	—
Proceeds from sale of subsidiaries, net of cash disposed (Note 10)	37,386	619	—
Proceeds from sale/liquidation of associates (Note 15)	3,067	—	—
Other investing activities	5	—	—
NET CASH USED IN INVESTING ACTIVITIES	<u>(29,554)</u>	<u>(78,389)</u>	<u>(81,510)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:			
Repayment of notes	(189)	(27,983)	(12,042)
Proceeds from issuance of notes	72,500	27,550	45,000
Notes and debt issuance cost paid	(111)	(39)	(98)
Lease obligation principal paid	(15,154)	(13,577)	(774)
Dividends paid	(52,505)	(50,054)	(51,759)
Acquisition of entities under common control, net of cash acquired	(15,312)	(13,242)	—
Proceeds from loans	62,415	95,000	25,136
Repayment of loans	(156,511)	(20,076)	(32,239)
Payments under credit guarantee agreement related to foreign-currency hedge (Note 29)	—	(981)	(1,766)
Repurchase of common stock	(15,922)	(22,655)	(21,896)
Other financing activities	341	133	(7)
NET CASH USED IN FINANCING ACTIVITIES	<u>(120,448)</u>	<u>(25,924)</u>	<u>(50,445)</u>
Effect of exchange rate changes on cash and cash equivalents	(2,655)	3,412	(569)
NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS	<u>(46,005)</u>	<u>53,489</u>	<u>12,116</u>
CASH AND CASH EQUIVALENTS, beginning of the year	<u>84,075</u>	<u>30,586</u>	<u>18,470</u>
CASH AND CASH EQUIVALENTS, end of the year	<u>38,070</u>	<u>84,075</u>	<u>30,586</u>

The accompanying notes are an integral part of these consolidated financial statements.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in millions of Russian Rubles unless otherwise stated)

1. GENERAL INFORMATION AND DESCRIPTION OF BUSINESS

Mobile TeleSystems Public Joint-Stock Company (“MTS PJSC”, or “the Company”) is a company incorporated under the laws of the Russian Federation and having its registered address at 4, Marksistskaya Street, 109147, Moscow, Russian Federation.

The consolidated financial statements of the Company and its subsidiaries (“the Group” or “MTS”) as of December 31, 2019 and 2018, and for the years ended 31 December 2019, 2018 and 2017 were authorized for issue by the President of the Company on March 12, 2020.

Business of the Group—MTS PJSC was incorporated on March 1, 2000, through the merger of MTS CJSC and Rosico TC CJSC, its wholly-owned subsidiary. MTS CJSC started its operations in the Moscow licence area in 1994, before expanding through Russia and the CIS. MTS PJSC’s majority shareholder is Sistema Public Joint-Stock Financial Corporation or Sistema, whose controlling shareholder is Vladimir P. Yevtushenkov.

The Group provides a wide range of telecommunications services including voice and data transmission, internet access, pay TV, various value added services (“VAS”) through wireless and fixed lines, financial services, integration services as well as the sale of equipment, accessories and software. In June 2018 the Group entered the market of banking services through acquisition of controlling stake in PJSC MTS Bank. Upon disposal of its operations in Ukraine in December 2019 (Note 10), the Group primarily operates in Russia.

MTS completed its initial public offering in 2000 and listed its shares of common stock, represented by American Depositary Shares, or ADSs, on the New York Stock Exchange under the symbol “MBT”. Since 2003 common shares of MTS PJSC have been traded on the Public Joint-Stock Company “Moscow Exchange MICEX-RTS” (the “Moscow Exchange”).

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND NEW ACCOUNTING PRONOUNCEMENTS

Basis of preparation—These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

These consolidated financial statements have been prepared on a historical cost basis, unless disclosed otherwise. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Amounts in the consolidated financial statements are stated in millions of Russian Rubles (“RUB million”), unless indicated otherwise.

These consolidated financial statements have been prepared on the assumption that the Group is a going concern and will continue in operation for the foreseeable future.

Basis of consolidation—The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company. Control is achieved only where the Company has power over the entity, is exposed and has rights to variable returns, and is able to use the power to affect its amount of variable returns. The results of the controlled entities acquired or disposed of during the reporting period are included in the consolidated financial statements from the date the Group achieves control over the entity, or until the date on which the Company ceases to control the entity. If necessary, the accounting policies of controlled entities are aligned with the accounting policy applied by the Group. All intra-group balances, income, expenses and cash flows are eliminated on consolidation.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Amounts in millions of Russian Rubles unless otherwise stated)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND NEW ACCOUNTING PRONOUNCEMENTS (Continued)

Effective ownership interests in the Group's significant subsidiaries were the following:

	Accounting method	December 31, 2019	December 31, 2018
RTC	Consolidated	100.0%	100.0%
MTS Turkmenistan (Note 9)	Consolidated	100.0%	100.0%
Sibintertelecom	Consolidated	100.0%	100.0%
NVision Group	Consolidated	100.0%	100.0%
MTS IT	Consolidated	100.0%	100.0%
NVision Czech Republic	Consolidated	100.0%	100.0%
Sputnikovoe TV	Consolidated	100.0%	100.0%
Stream	Consolidated	100.0%	100.0%
Dega	Consolidated	100.0%	100.0%
Stream Digital ⁽¹⁾	Consolidated	100.0%	100.0%
MTS Energo	Consolidated	100.0%	100.0%
MDTZK LLC (Ticketland)	Consolidated	100.0%	100.0%
IT Grad	Consolidated	100.0%	100.0%
RIKT	Consolidated	100.0%	—
Kinopolis	Consolidated	100.0%	—
MTS Armenia	Consolidated	100.0%	80.0%
MTS Bank (Note 4)	Consolidated	99.9%	55.4%
MGTS Group	Consolidated	94.7%	94.7%
Navigation Information Systems Group	Consolidated	94.7%	94.7%
Kulturnaya Sluzhba (Ponominalu)	Consolidated	89.1%	78.2%
Oblachny Retail LLC	Consolidated	50.8%	50.8%
MTS International Funding Limited ⁽²⁾ ("MTS International")	Consolidated	SE	SE
VF Ukraine ⁽³⁾ (Note 10)	Consolidated	—	100.0%
MTS Belarus (Note 15)	Equity	49.0%	49.0%
Sistema Capital	Equity	30.0%	30.0%
Zifrovoe TV	Equity	20.0%	20.0%
OZON Holdings Limited (Note 15)	Equity	—	18.7%
YouDo Web Technologies (Note 15)	Equity	15.5%	13.7%
SWIPGLOBAL	Equity	15.0%	—

(1) A wholly-owned subsidiary, through which the Group repurchases its own shares.

(2) A company organized and existing as a private limited company under the laws of Ireland. The Group does not have any equity in MTS International. It was established for the purpose of raising capital through the issuance of debt securities on the Irish Stock Exchange followed by transferring the proceeds through a loan facility to the Group. In 2010 and 2013, MTS International issued USD 750 million 8.625% notes due in 2020 and USD 500 million 5.0% notes due in 2023, respectively (Note 23). The notes are guaranteed by MTS PJSC in the event of default. MTS International does not perform any other activities except those required for notes servicing. The Group bears all costs incurred by MTS International in connection with the notes' maintenance activities. Accordingly, the Group concluded that it exercises control over the entity.

(3) Disposed on December 3, 2019.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Amounts in millions of Russian Rubles unless otherwise stated)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND NEW ACCOUNTING PRONOUNCEMENTS (Continued)

Acquisitions from entities under common control—Business combinations arising from transfers of interests in entities that are under common control with the Group are consolidated prospectively starting from the date that the control over those entities is passed to the Group. The assets and liabilities acquired are recognized at the carrying values recorded previously in the counterparty's financial statements, with the resulting gain or loss recognized directly in equity.

Joint operations—The Group has joint operations with Megafon and Vimpelcom, relating to the construction of LTE base stations. Joint operations are characterized by the fact that the operators that have joint control over the arrangement each have both a right to the assets, and obligations for the liabilities, according to the arrangement. Respectively, each operator accounts for its share of the joint assets and its agreed share of any liabilities, and recognizes its share of the output, revenues and expenses incurred under the arrangement. The result of joint operations does not influence the financial statements significantly.

Non current assets held for sale and discontinued operations—The Group classifies assets and disposal groups as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is met only when the assets (or disposal group) are available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets (or disposal groups) and their sale is highly probable to occur within a year. Held for sale assets and disposal groups are measured at the lower of carrying amount or fair value less cost to sell.

Assets and liabilities classified as held for sale are presented separately as current items in the statement of financial position.

A disposal group qualifies as discontinued operation if it is a component of the entity that either has been disposed of or is classified as held for sale, and:

- Represents a separate major line of business or geographical area of operations;
- Is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations;
- Or is a subsidiary acquired exclusively with a view to resale.

Discontinued operations are excluded from the results of continuing operations and are presented as a single amount as profit or loss after tax from discontinued operations in the statement of profit or loss.

Group's statement of cash flows include both cash flows from continuing and discontinued operations, amounts related to discontinued operations by operating, investing and financing activities are presented in Note 10.

Functional currency translation methodology—As of December 31, 2019, the functional currencies of Group entities were as follows:

- For entities incorporated in the Russian Federation, Dega and MTS International—the Russian Ruble (“RUB”);

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Amounts in millions of Russian Rubles unless otherwise stated)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND NEW ACCOUNTING PRONOUNCEMENTS (Continued)

- For VF Ukraine—the Ukrainian Hryvna;
- For MTS Armenia—the Armenian Dram;
- For MTS Turkmenistan—the Turkmenian Manat;
- For MTS Belarus—the Belarusian Ruble;
- For NVision Czech Republic—the Czech Crown.

Foreign-currency transactions are translated into the functional currency at the exchange rates at the dates of the transactions. At the reporting date, monetary items denominated in foreign currencies are translated at the closing rate, whereas non-monetary items are stated at the exchange rate at the date of their recognition. Exchange rate differences are recognized in profit or loss.

For entities whose records are maintained in their functional currency, which is other than the reporting currency, all year-end assets and liabilities have been translated into U.S. Dollars (“USD”) at the period-end exchange rate set by local central banks. Subsequently, U.S. Dollars balances have been translated into Russian Rubles at the period-end exchange rate set by the Central Bank of Russia. Revenues and expenses have been translated at the average exchange rate for the period using the cross-currency exchange rate via the U.S. Dollar as described above. Translation differences resulting from the use of these rates are reported as a component of other comprehensive income.

Standards, interpretations and amendments adopted on January 1, 2018

Starting from January 1, 2018 the Group has applied IFRS 9, “*Financial Instruments*”, IFRS 15, “*Revenue from Contracts with Customers*”, and IFRS 16, “*Leases*”.

Prior period comparatives for the year ended December 31, 2017 were not restated.

Standards, interpretations and amendments adopted on January 1, 2019

On January 1, 2019 the Group adopted the following standards, interpretations and amendments:

Amendments to IAS 28	Long-term Interests in Associates and Joint Ventures
Amendments to IAS 19	Plan Amendment, Curtailment or Settlement
IFRIC 23	Uncertainty over Income Tax Treatments
Amendments to IFRS 9	Prepayment Features With Negative Compensation
Amendments IFRSs	Annual Improvements to IFRSs 2015-2017 Cycle

None of them had a material impact on the Group’s consolidated financial statements.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Amounts in millions of Russian Rubles unless otherwise stated)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND NEW ACCOUNTING PRONOUNCEMENTS (Continued)

Standards, interpretations and amendments in issue but not yet effective

The Group has not applied the following new and revised IFRSs that have been issued but are not yet effective:

Amendments to Conceptual Framework . . .	Conceptual Framework in IFRS standards ⁽¹⁾
Amendments to IFRS 3	Definition of a Business ⁽¹⁾
Amendments to IAS 1 and IAS 8	Definition of Material ⁽¹⁾
Amendments to IFRS 9, IAS 39 and IFRS 7	Interest Rate Benchmark Reform and its Effects on Financial Reporting ⁽¹⁾
IFRS 17	Insurance Contracts ⁽²⁾
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture ⁽³⁾
Annual Improvements to IFRSs (2010— 2012 Cycle Amendments to IAS 1)	Classification of Liabilities as Current or Non-Current ⁽⁴⁾

(1) Effective for annual periods beginning on or after January 1, 2020, with earlier application permitted.

(2) Effective for annual periods beginning on or after January 1, 2021, with earlier application permitted.

(3) The effective date for these amendments was deferred indefinitely. Early adoption continues to be permitted.

(4) Effective for annual periods beginning on or after January 1, 2022, with earlier application permitted.

These IFRS pronouncements are not expected to have a material impact on the Group's consolidated financial statements.

3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS

A critical accounting estimate is an estimate that is both important to the presentation of the Group's financial position and requires management's most difficult, subjective or complex judgments, often as a result of the need to determine estimates and develop assumptions about the outcome of matters that are inherently uncertain.

Management evaluates such estimates on an on-going basis, based upon historical results, historical experience, trends, consultations with experts, forecasts of the future, and other methods which management considers reasonable under the circumstances. Management considers the accounting estimates discussed below to be its critical accounting estimates, and, accordingly, provides an explanation of each.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Amounts in millions of Russian Rubles unless otherwise stated)

3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS (Continued)

1. Depreciation and amortization of non-current assets

Depreciation and amortization expenses are based on management estimates of useful life, residual value and amortization method of property and equipment and intangible assets. Estimates may change due to technological developments, competition, changes in market conditions and other factors and may result in changes in the estimated useful life and in the amortization or depreciation charges. Technological developments are difficult to predict and management views on the trends and pace of development may change over time. Some of the assets and technologies, in which the Group invested several years ago, are still in use and provide the basis for new technologies. Critical estimates in the evaluations of useful lives for intangible assets include, but are not limited to, the estimated average customer relationship based on churn, the remaining license period and the expected developments in technology and markets.

The useful lives of property and equipment and intangible assets are reviewed at least annually, taking into consideration the factors mentioned above and all other important relevant factors. The actual economic lives of intangible assets may be different from useful lives estimated by management, thereby resulting in a different carrying value of intangible assets with finite lives.

The Group continues to evaluate the amortization period for intangible assets with finite lives to determine whether events or circumstances warrant revised amortization periods. A change in estimated useful lives is a change in accounting estimate, and depreciation and amortization charges are adjusted prospectively. See Notes 19 and 22 for further information.

2. Impairment of non-current assets

The Group has made significant investments including in property, plant and equipment, intangible assets, goodwill, right-of-use assets, acquiring and fulfilling of contracts.

Pursuant to IAS 36, goodwill and other intangible assets with indefinite useful lives and intangible assets not yet brought into use must be tested for impairment annually or more often if indicators of impairment exist. Other assets are tested for impairment when circumstances indicate that there may be a potential impairment.

Recoverable amounts of assets and cash generating units (“CGUs”) are based on evaluations, including the determination of the appropriate CGUs, the discount rate, estimates of future performance, the revenue generating capacity of the assets, timing and amount of future purchases of property and equipment, assumptions of the future market conditions and the long-term growth rate into perpetuity (terminal value). A change of assumptions, particularly in relation to the discount rate and growth rate used to estimate the recoverable amounts of assets, could significantly impact results of the Group’s impairment evaluation.

All of the Group’s operations are in countries with emerging markets. The political and economic situation in these countries may change rapidly which could potentially have a significant impact on these operations. The changing state of the world economy, and increased macroeconomic risks also impact the assessment of cash flow forecasts and the discount rates applied.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS (Continued)

There are significant variations between different markets with respect to growth, mobile penetration, Average revenue per user, the Company's market share and similar parameters, which result in differences in operating margins. The future developments of operating margins are important in the Group's impairment assessments, and the long-term estimates of these margins are highly uncertain.

See Note 21 for further information.

3. Fair value of financial instruments

Where the fair value of financial assets and financial liabilities recorded in the statement of financial position cannot be derived from active markets, their fair value is determined using valuation techniques, including discounted cash flow models. The inputs to these models are taken from observable markets where possible, but when this is not feasible, a degree of judgment is required in establishing fair values. The judgments include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments. See Note 27 for further information.

4. Provisions and contingencies

The Group is subject to various legal proceedings, disputes and claims, including regulatory discussions related to the Group's business, licenses, tax positions and investments, where the outcomes are subject to significant uncertainty. In addition, significant uncertainty exists in relation to employee bonuses and other rewards, which depend on their individual performance and Group's results. The management evaluates, among other factors, the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of loss or related expense. Unanticipated events or changes in these factors may require the Group to increase or decrease the amount recorded or to be recorded for a matter that has not been previously recorded because it was not considered probable. See Notes 26 and Note 33 for further information.

5. Right-of-use assets and lease liabilities

The value of right-of-use assets and lease liabilities is based on management estimates of lease terms as well as an incremental borrowing rate used to discount lease payments. The lease term corresponds to the non-cancellable period of each contract except in cases where the Group is reasonably certain of exercising renewal options. When assessing the lease term the management considers all facts and circumstances that create the economic incentive for the Group to exercise the option to extend the lease, such as the useful life of the asset located on the leased site, statistics on sites replacement, sequence of technology change, profitability of the Group's retail stores as well as costs to terminate or enter into lease contracts. The incremental borrowing rate of the Group is determined based on the credit spreads of the Group's debt instruments in relation to zero-coupon yield curve for government securities.

Changes in these factors could affect the estimated lease term and the reported value of right-of-use assets and lease liabilities.

See Note 24 for further information.

6. Impairment of financial assets

The Group uses management's judgement to estimate allowance for expected credit losses (ECL) for financial assets at amortized costs. ECL are measured in a way that reflects the unbiased and probability-weighted amount, the time-value of money and reasonable and supportable information at the reporting date pertaining to past events, current conditions and forecasts of future economic conditions.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS (Continued)

ECL are measured as probability-weighted present value of all cash shortfalls over the expected life of each financial asset. For receivables from financial services, ECL are mainly calculated using a statistical model based on three major risk parameters: probability of default, loss given default and exposure at default.

The estimation of these risk parameters incorporates all available relevant information, not only historical and current loss data, but also reasonable and supportable forward-looking information reflected by the future expectation factors. This information includes macroeconomic factors (unemployment rate, inflation rate) and forecasts of future economic conditions.

Significant changes in risk parameters could affect the estimated amount of ECL.

See Notes 17 and 28 for further information.

4. BUSINESS ACQUISITIONS AND DISPOSALS

Unless stated otherwise, all business combinations disclosed were accounted for by applying the acquisition method. Goodwill recognized as a result of the acquisitions is not expected to be deductible for income tax purposes.

Acquisitions in 2019

Acquisition of JSC RIKT—In June 2019, the Group acquired a 97.4% ownership interest in JSC RIKT (“RIKT”), a fixed-line operator in the Kemerovo region, for cash consideration of RUB 360 million. This acquisition allows the Group to increase its market share in the region. In September 2019, the Group finalized the mandatory share repurchase from minority shareholders of RIKT and increased its share to 100%.

The fair values of the identifiable assets and liabilities of RIKT as at the date of acquisition were as follows:

Goodwill⁽¹⁾	105
Other intangible assets ⁽²⁾	172
Property, plant and equipment	118
Trade and other receivables	12
Cash and cash equivalents	6
Other current assets	9
Other non-current assets	14
Current liabilities	(37)
Non-current liabilities	(39)
Consideration transferred (in cash)	<u>360</u>

(1) The goodwill is attributable to the expected synergies resulted from the acquisition and allocated to the “Russia Convergent” operating segment.

(2) Amortized over the average term of 12 years.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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4. BUSINESS ACQUISITIONS AND DISPOSALS (Continued)

Acquisitions under common control, accounted for directly in equity

Acquisition of JSC Objedinennye Russkie Kinostudii—In April 2019, the Group acquired JSC Objedinennye Russkie Kinostudii (“Kinopolis”) from Business-Nedvizhimost, a subsidiary of Sistema, for total consideration of RUB 2,042 million. Kinopolis owns fully equipped movie complex in Saint-Petersburg. Acquisition of Kinopolis enables the Group to develop its own entertainment content.

Acquisition of property complex at Narodnogo opolcheniya street («Narodnoje»)—In August 2019, the Group acquired Narodnoje property complex from Sistema for total consideration of RUB 329 million. The property complex comprises office facilities leased by the Group and hostel premises leased by a third party and operates under management agreement with Business-Nedvizhimost, a subsidiary of Sistema. The acquisition enables the Group to optimize its rental expenses and enhance its investment property portfolio.

The following table summarizes the details of acquisitions of subsidiaries under common control finalized in 2019:

<u>Acquired company</u>	<u>Consideration paid net of cash acquired*</u>	<u>Cash acquired</u>	<u>Assets acquired other than cash</u>	<u>Liabilities assumed</u>
Kinopolis	2,030	12	1,017	58
Narodnoje	329	—	102	—
Total effect of acquisitions under common control	<u>2,359</u>	<u>12</u>	<u>1,019</u>	<u>58</u>

* Included in consolidated statement of cash flows within cash flows from financing activities as transactions with entities under common control

Acquisitions in 2018

Acquisition of Kulturnaya Sluzhba—In January 2018, the Group acquired a 78.2% ownership interest in Kulturnaya Sluzhba LLC (“KS”), operating under the trademark Ponominalu.ru. The purchase price comprised a cash payment, deferred payment which was payable within 12 months from the acquisition date, and a contingent consideration to be paid to the sellers if agreed upon financial targets are met by KS.

Acquisition of MDTZK—In February 2018, the Group acquired a 100% ownership interest in Moskovskaia Direkctcia Teatralno-Kontcertnyh i Sportivno-Zrelishchnyh Kass LLC (“MDTZK”), operating under the trademark Ticketland.ru. The purchase price comprised of both cash payment and deferred payment which was payable within 12 months from the acquisition date.

These acquisitions allow the Group to enter the event ticketing market, whilst also broadening the Group’s suite of digital services.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Amounts in millions of Russian Rubles unless otherwise stated)

4. BUSINESS ACQUISITIONS AND DISPOSALS (Continued)

Acquisition of ProgTech—In August 2018, the Group acquired a 99% ownership interest in science and production association Progressivniye Technologii CJSC (“ProgTech”), a provider of fixed-line services in the cities of Zhukovskiy and Anapa. The acquisition of ProgTech allows the Group to strengthen its position in these local markets and benefit from the expected synergies. The purchase price comprised of cash payment and deferred payment.

Acquisition of IT-Grad—In December 2018, the Group acquired a 100% ownership interest in IT-Grad 1 Cloud LLC (“IT-Grad”), one of the largest cloud services providers on the Russian IaaS market. The acquisition allows the Group to strengthen its presence in the Russian cloud services market. The purchase price comprised of cash payment of RUB 1,515 million and a contingent consideration. The Group was bound to pay the contingent consideration of RUB 691 million in 8 months after the acquisition date and of RUB 249 million in 18 months after the acquisition date following certain conditions, including the transfer of rights on tangible and intangible assets.

The fair values of the identifiable assets and liabilities of acquired companies as at the dates of acquisitions were the following:

	<u>KS</u>	<u>MDTZK</u>	<u>ProgTech</u>
Goodwill	479⁽¹⁾	2,033⁽²⁾	213⁽³⁾
Customer base	37 ⁽⁴⁾	727 ⁽⁴⁾	123 ⁽⁵⁾
Trademark	129 ⁽⁴⁾	779 ⁽⁴⁾	—
Other non-current assets	43	145	172
Current assets	117	202	15
Cash and cash equivalents	39	542	28
Current liabilities	(383)	(868)	(80)
Liability under put option agreement over non-controlling interests	(106)	—	—
Non-current liabilities	(34)	(370)	(76)
Total consideration	<u>321</u>	<u>3,190</u>	<u>395</u>
<i>Including:</i>			
Fair value of contingent consideration	54	—	3
Cash paid	267	3,190	392

- (1) The goodwill is attributable to the market significance of the acquiree in the Russian event ticketing industry and expected synergies resulted from the acquisition and allocated to the “Ponominalu” operating segment.
- (2) The goodwill is attributable to the market significance of the acquiree in the Russian event ticketing industry and expected synergies resulted from the acquisition and allocated to the “Ticketland” operating segment.
- (3) The goodwill is attributable to the expected synergies resulted from the acquisition and allocated to the “Moscow fixed line” operating segment.
- (4) Amortized over the term of 10 years.
- (5) Amortized over the term of 15 years.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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4. BUSINESS ACQUISITIONS AND DISPOSALS (Continued)

The purchase price allocation of IT-Grad was not finalized as of the date the 2018 financial statements were authorised for issue as the Group had not completed the valuation of the individual assets of the company acquired. The Group's consolidated financial statements as of December 31, 2018 reflected the allocation of the purchase price based on a preliminary fair value assessment of the assets acquired and liabilities assumed. In 2019 the Group finalized the valuation of assets of IT-Grad and the acquisition date fair value of the assets changed since the preliminary calculations. The following table summarizes the purchase price allocation for IT-Grad as of December 31, 2019:

	<u>Preliminary amounts</u>	<u>Measurement period adjustments</u>	<u>Final amounts</u>
Goodwill	1,877⁽¹⁾	—	1,877⁽¹⁾
Customer base	643	(192)	451 ⁽²⁾
Trademark	—	41	41
Other non-current assets	32	128	160
Current assets	44	—	44
Cash and cash equivalents	13	—	13
Current liabilities	(59)	(47)	(106)
Non-current liabilities	(128)	4	(124)
Total consideration	<u>2,422</u>	<u>(66)</u>	<u>2,356</u>
<i>Including:</i>			
Fair value of contingent consideration	907	(66)	841
Cash paid	1,515 ⁽³⁾	—	1,515 ⁽³⁾

- (1) The goodwill is attributable to the market position obtained and expected synergies resulted from the acquisition and allocated to the "Russia Convergent" operating segment.
- (2) Amortized over the term of 7 years.
- (3) Cash consideration for IT-Grad was paid in 2019.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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(Amounts in millions of Russian Rubles unless otherwise stated)

4. BUSINESS ACQUISITIONS AND DISPOSALS (Continued)

According to the terms of the purchase agreements, deferred payments and contingent consideration payable by the Group could be reduced by the amount of any losses incurred by the Group in respect of any tax or other claims relating to the pre-acquisition period. In case the amount of the losses incurred exceeds the amount of deferred payment, the seller has indemnified the Group for the amounts in excess. The Group recognized the following liabilities and indemnification assets in respect to deferred payments on aforementioned acquisitions on acquisition dates:

	<u>KS</u>	<u>MDTZK</u>	<u>ProgTech</u>
Expected timing of deferred payment	January, 2019	February, 2019	August, 2019 - August, 2020
Deferred payment per agreement	78	60	32
Provision for tax liabilities related to pre-acquisition period as of acquisition date	<u>(134)</u>	<u>(125)</u>	<u>(29)</u>
Liability on deferred payment	—	—	(3)
Indemnification asset	<u>56</u>	<u>65</u>	<u>—</u>

As of December 31, 2019 the consideration payable relating to acquisitions of KS and MDTZK was fully settled by the Group. The Group recognized the indemnification asset in respect to deferred payments on acquisition of ProgTech as of December 31, 2019:

Deferred payment per agreement	32
Provision for tax liabilities related to the pre-acquisition period	<u>(29)</u>
Indemnification asset	3

Certain conditions precedent to the payment of contingent consideration for IT-Grad acquisition were not satisfied as of December 31, 2019 and the payment of RUB 691 million was not effected in 2019. As of December 31, 2019 the Group recognized the liability for contingent consideration in amount of RUB 907 million.

The Group also entered into an option agreement with the non-controlling shareholders of the KS. Pursuant to the agreement, the Group has the right and obligation in the form of a call and put option, with the put option exercisable at the request of non-controlling shareholders, to acquire their shares at a price calculated based on the operating and financial results of KS.

Acquisitions under common control, accounted for directly in equity

Acquisition of Dekart—In October 2018, the Group acquired Dekart property complex from Sistema for a total consideration of RUB 5,242 million. The property complex comprises office facilities leased by the Group, subsidiaries of Sistema and other counterparties, parking premises and engineering networks and operates under management agreement with Business-Nedvizhimost, a subsidiary of Sistema. The acquisition enables the Group to optimize its rental expenses and enhance its investment property portfolio.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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4. BUSINESS ACQUISITIONS AND DISPOSALS (Continued)

Acquisition of MTS Bank—In July 2018, the Group increased ownership share in the Group associate MTS Bank from 26.6% to 55.4% and obtained control over the entity. Consideration paid to Sistema for additional share in MTS Bank amounted to RUB 8,273 million.

In 2019 the Group increased its share in MTS Bank to 99.9% as of December 31, 2019 through participation in additional share issuance and purchase from Sistema. Consideration paid to Sistema for additional share in MTS Bank amounted to RUB 12,855 million.

Acquisition of Serebryaniy Bor—In December 2018, the Group acquired Serebryaniy Bor property complex from Sistema for a total consideration of RUB 1,711 million. The property complex comprises land, nonresidential buildings leased by the Group and other counterparties, and engineering networks.

The details of acquisitions of subsidiaries under common control in 2018 are as follows:

<u>Acquired company</u>	<u>Consideration paid net of cash acquired*</u>	<u>Cash acquired</u>	<u>Assets acquired other than cash</u>	<u>Liabilities assumed</u>
Dekart	4,658	—	3,406	125
Serebryaniy Bor	1,711	—	383	—
MTS Bank	6,873	1,401*	126,180	128,165
Total effect of acquisitions under common control	<u>13,242</u>	<u>1,401</u>	<u>129,969</u>	<u>128,290</u>

* Included in consolidated statement of cash flows within cash flows from financing activities as transactions with entities under common control

Acquisitions in 2017

Acquisition of Bashkortostan Cellular Communication—In July 2017, the Group acquired a 100% ownership interest in Bashkortostan Cellular Communication OJSC (“BCC”). BCC operates in the Republic of Bashkortostan and holds rights to use 450 MHz and 2,100 MHz radio frequencies. The acquisition enhances the Group’s spectrum of resources in the Republic of Bashkortostan. The purchase price comprised of cash payment and a contingent consideration, payable in 12 months from the acquisition date.

Acquisition of Oblachny Retail—In October 2017, the Group acquired a 50.82% of ownership interest in the Russian retail software developer Oblachny Retail LLC (“Oblachny Retail”), operating under trademark LiteBox, with a call and put option arrangement existing over another 49.18% of shares. The deal allows the Group to enter the cloud-based cash register market as a fully licensed fiscal data operator (“FDO”) and a provider of integrated digital cash management solutions for B2B clients. The purchase price comprised of cash payment and a contingent consideration, payable within 12 months from the acquisition date. As a part of business combination, the Group also contributed RUB 420 million to the share capital of the acquiree to provide funds for future development. The Group has elected to measure the non-controlling interests in the acquiree at fair value.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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4. BUSINESS ACQUISITIONS AND DISPOSALS (Continued)

Acquisition of Praliss Enterprises—In December 2017, the Group purchased a 100% ownership interest in Praliss Enterprises (“Praliss”), thus acquiring one of the world’s leading eSport clubs—Gambit Esports. The acquisition is a part of the Group’s digital innovation strategy. The purchase price comprised of cash payment, a contingent consideration, payable within 12 months from the acquisition date, and the earn-out amounts based upon operational targets of Praliss in 2018 - 2019.

The fair values of the identifiable assets and liabilities of acquired companies as at the dates of acquisitions were the following:

	<u>BCC</u>	<u>Oblachny Retail</u>	<u>Praliss</u>
Goodwill	62 ⁽¹⁾	524 ⁽²⁾	208 ⁽³⁾
Licenses	260 ⁽⁴⁾	—	—
Other non-current assets	21	181	132
Current assets	5	23	—
Cash and cash equivalents	13	420	—
Current liabilities	(15)	(123)	—
Liability under put option agreement over non-controlling interests	—	(402)	—
Non-current liabilities	(54)	(33)	(27)
Total consideration	<u>292</u>	<u>590</u>	<u>313</u>
Including:			
Fair value of contingent consideration and earn-out payments	72	10	93
Additional contribution	—	420	—
Cash paid	220	160	220

- (1) The goodwill is attributable to the expected synergies resulted from the acquisition and allocated to the “Russia convergent” operating segment.
- (2) The goodwill is attributable to the company employees and expected synergies resulted from the acquisition and allocated to the “Oblachny Retail” operating segment.
- (3) The goodwill is attributable to the expected synergies resulted from the acquisition and allocated to the “eSports” operating segment.
- (4) Amortized over the term of 15 years on average.

The Group also entered into an option agreement with the shareholders of Litebox, pursuant to which the Group has the right and obligation, at the request of non-controlling shareholders, to acquire their shares at a price calculated based on the operating results of Oblachny Retail for 2019-2020.

As of December 31, 2019 the consideration payables relating to acquisitions of BCC, Oblachny Retail and Praliss were fully settled by the Group.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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4. BUSINESS ACQUISITIONS AND DISPOSALS (Continued)

Pro forma results of operations—The following pro forma financial data for the years ended December 31, 2019, 2018 and 2017 give effect to the business combinations as they had been completed at the beginning of the year.

<u>Pro forma:</u>	<u>2019</u> <u>RIKT, Kinopolis,</u> <u>Narodnoje</u>	<u>2018</u> <u>MTS Bank,</u> <u>MDTZK,</u> <u>Kulturnaya Sluzhba,</u> <u>Progtech, Dekart,</u> <u>IT Grad,</u> <u>Serebryaniy Bor</u>	<u>2017</u> <u>Oblachny Retail,</u> <u>BCC, Praliss</u>
Net revenues	476,257	463,110	418,185
Net income	55,101	8,194	55,881

The pro forma information is based on various assumptions and estimates. The pro forma information is neither necessarily indicative of the operating results that would have occurred if the Group acquisitions had been consummated as of January 1, 2017, 2018, or 2019, nor is it necessarily indicative of future operating results. The pro forma information does not give effect to any potential revenue enhancements or cost synergies or other operating efficiencies that could result from the acquisitions. The actual results of operations of these companies are included into the consolidated financial statements of the Group only from the respective dates of acquisition and are presented as follows:

	<u>2019</u> <u>RIKT, Kinopolis,</u> <u>Narodnoje</u>	<u>2018</u> <u>MTS Bank,</u> <u>MDTZK,</u> <u>Kulturnaya Sluzhba,</u> <u>Progtech, Dekart,</u> <u>IT Grad,</u> <u>Serebryaniy Bor</u>	<u>2017</u> <u>Oblachny Retail,</u> <u>BCC, Praliss</u>
Net revenues	238	13,261	37
Net (loss)/income	(15)	615	(105)

5. SEGMENT INFORMATION

Management (chief operating decision maker) analyzes and reviews results of the Group's operating segments separately based on the nature of products and services, regulatory environments and geographic areas. Management of the Group evaluates the segments' performance of each segment based on revenue and operating profit, excluding depreciation and amortization. Management does not analyze assets or liabilities by reportable segments.

The Group identified the following reportable segments:

Russia Convergent: represents the results of mobile and fixed line operations, which encompasses services rendered to customers across the regions of Russia, including voice and data services, transmission, broadband, pay-TV and various value-added services and retail operations.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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5. SEGMENT INFORMATION (Continued)

Moscow Fixed Line: represents the results of fixed line operations carried out in Moscow by the Group's subsidiary MGTS. MGTS is the only licensed public switched telephone network ("PSTN") operator in Moscow and is considered a natural monopoly under Russian antimonopoly regulations. Consequently, a substantial part of the services provided by MGTS are subject to governmental regulation.

Ukraine: was excluded from operating segments presentation as a result of its disposal in December 2019 (Note 10). This exclusion was retrospectively presented in each of 2018 and 2017.

MTS Bank: represents the results of banking services rendered to customers across regions of Russia.

The "Other" category does not constitute a reportable segment. It includes the results of a number of other operating segments that do not meet the quantitative thresholds for separate reporting, such as Turkmenistan, Armenia, System Integrator, Satellite TV and others.

The intercompany eliminations presented below primarily consist of sales transactions between segments conducted under the normal course of operations.

Financial information by reportable segments is presented below:

Year ended December 31, 2019:

	<u>Russia Convergent</u>	<u>Moscow Fixed Line</u>	<u>MTS Bank</u>	<u>Total</u>	<u>Other</u>	<u>HQ and elimination</u>	<u>Consolidated</u>
Revenue							
External customers	391,084	34,598	29,304	454,986	21,026	94	476,106
Intersegment	9,295	4,253	1,881	15,429	16,474	(31,903)	—
Total revenue	400,379	38,851	31,185	470,415	37,500	(31,809)	476,106
Operating profit/(loss)	102,869	17,244	3,473	123,586	3,569	(12,967)	114,188
Depreciation and amortization . . .	(84,311)	(9,506)	(1,082)	(94,899)	(3,608)	2,228	(96,279)
Other disclosure:							
Capital expenditures	76,472	9,100	2,414	87,986	3,025	—	91,011

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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5. SEGMENT INFORMATION (Continued)

Year ended December 31, 2018:

	<u>Russia Convergent</u>	<u>Moscow Fixed Line</u>	<u>MTS Bank</u>	<u>Total</u>	<u>Other</u>	<u>HQ and elimination</u>	<u>Consolidated</u>
Revenue							
External customers	385,912	34,348	11,534	431,794	19,549	123	451,466
Intersegment	6,258	4,498	538	11,294	12,780	(24,074)	—
Total revenue	392,170	38,846	12,072	443,088	32,329	(23,951)	451,466
Operating profit/(loss)	105,377	12,695	1,512	119,584	1,072	(11,635)	109,021
Depreciation and amortization . . .	(82,457)	(10,867)	(547)	(93,871)	(3,620)	2,105	(95,386)
Other disclosure:							
Capital expenditures	67,863	6,306	683	74,852	13,596	—	88,448

Year ended December 31, 2017:

	<u>Russia Convergent</u>	<u>Moscow Fixed Line</u>	<u>MTS Bank</u>	<u>Total</u>	<u>Other</u>	<u>HQ and elimination</u>	<u>Consolidated</u>
Revenue							
External customers	365,846	34,350	—	400,196	17,617	105	417,918
Intersegment	5,136	4,683	—	9,819	12,786	(22,605)	—
Total revenue	370,982	39,033	—	410,015	30,403	(22,500)	417,918
Operating profit/(loss)	93,821	8,801	—	102,622	(871)	(11,510)	90,241
Depreciation and amortization . . .	(59,942)	(10,642)	—	(70,584)	(3,481)	125	(73,940)
Other disclosure:							
Capital expenditures	65,790	7,403	—	73,193	2,392	—	75,585

The consolidated operating profit is reconciled to the consolidated profit before tax on the face of the consolidated statement of profit or loss.

Financial information by geographic area is presented below:

<u>Revenue</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Russia	464,916	440,899	405,365
Other	11,190	10,567	12,553
Total revenue	476,106	451,466	417,918

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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5. SEGMENT INFORMATION (Continued)

<u>Non-current assets⁽¹⁾</u>	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Russia	373,803	357,361
Other	10,080	54,151
Total non-current assets:	<u>383,883</u>	<u>411,512</u>

(1) Comprises property, plant and equipment, goodwill and other intangible assets.

Revenues from external customers and non-current assets are allocated to individual countries based on location of operations. No single customer represents 10% or more of the consolidated revenue.

Disaggregation of revenue:

<u>Year ended December 31, 2019:</u>	<u>Russia Convergent</u>	<u>Moscow Fixed Line</u>	<u>MTS Bank</u>	<u>Total</u>	<u>Other</u>	<u>HQ and elimination</u>	<u>Consolidated</u>
Revenue							
<i>Mobile services</i>	308,847	1,938	—	310,785	6,668	94	317,547
<i>Fixed line services</i>	23,085	32,543	—	55,628	376	—	56,004
<i>Finance services</i>	—	—	29,304	29,304	—	—	29,304
<i>Integration services</i>	1,475	—	—	1,475	2,508	—	3,983
<i>Sales of goods</i>	57,677	117	—	57,794	9,999	—	67,793
<i>Other services</i>	—	—	—	—	1,475	—	1,475
External Customers	391,084	34,598	29,304	454,986	21,026	94	476,106
Intersegment	9,295	4,253	1,881	15,429	16,474	(31,903)	—
Total revenue	<u>400,379</u>	<u>38,851</u>	<u>31,185</u>	<u>470,415</u>	<u>37,500</u>	<u>(31,809)</u>	<u>476,106</u>
Thereof:							
Recognised over time	333,407	34,481	21,996	389,884	11,027	94	401,005
Recognised at point of time	57,677	117	7,308	65,102	9,999	—	75,101
	<u>391,084</u>	<u>34,598</u>	<u>29,304</u>	<u>454,986</u>	<u>21,026</u>	<u>94</u>	<u>476,106</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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5. SEGMENT INFORMATION (Continued)

<u>Year ended December 31, 2018:</u>	<u>Russia Convergent</u>	<u>Moscow Fixed Line</u>	<u>MTS Bank</u>	<u>Total</u>	<u>Other</u>	<u>HQ and elimination</u>	<u>Consolidated</u>
Revenue							
<i>Mobile services</i>	304,049	1,487	—	305,536	6,662	123	312,321
<i>Fixed line services</i>	22,939	32,739	—	55,678	377	—	56,055
<i>Finance services</i>	—	—	11,534	11,534	—	—	11,534
<i>Integration services</i>	444	5	—	449	1,089	—	1,538
<i>Sales of goods</i>	58,480	117	—	58,597	10,172	—	68,769
<i>Other services</i>	—	—	—	—	1,249	—	1,249
External Customers	385,912	34,348	11,534	431,794	19,549	123	451,466
Intersegment	6,258	4,498	538	11,294	12,780	(24,074)	—
Total revenue	<u>392,170</u>	<u>38,846</u>	<u>12,072</u>	<u>443,088</u>	<u>32,329</u>	<u>(23,951)</u>	<u>451,466</u>
Thereof:							
Recognised over time	327,432	34,231	8,264	369,927	9,378	123	379,428
Recognised at point of time	58,480	117	3,270	61,867	10,172	—	72,039
	<u>385,912</u>	<u>34,348</u>	<u>11,534</u>	<u>431,794</u>	<u>19,550</u>	<u>123</u>	<u>451,466</u>
<u>Year ended December 31, 2017:</u>	<u>Russia Convergent</u>	<u>Moscow Fixed Line</u>	<u>Total</u>	<u>Other</u>	<u>HQ and elimination</u>	<u>Consolidated</u>	
Revenue							
<i>Mobile services</i>	297,273	798	298,071	10,236	105	308,412	
<i>Fixed line services</i>	22,358	33,453	55,811	353	—	56,164	
<i>Integration services</i>	191	—	191	1,062	—	1,253	
<i>Sales of goods</i>	46,024	99	46,123	5,966	—	52,089	
<i>Other services</i>	—	—	—	—	—	—	
External Customers	365,846	34,350	400,196	17,617	105	417,918	
Intersegment	5,136	4,683	9,819	12,786	(22,605)	—	
Total revenue	<u>370,982</u>	<u>39,033</u>	<u>410,015</u>	<u>30,403</u>	<u>(22,500)</u>	<u>417,918</u>	
Thereof:							
Recognised over time	319,822	34,251	354,073	11,651	105	365,829	
Recognised at point of time	46,024	99	46,123	5,966	—	52,089	
	<u>365,846</u>	<u>34,350</u>	<u>400,196</u>	<u>17,617</u>	<u>105</u>	<u>417,918</u>	

6. REVENUE FROM CONTRACTS WITH CUSTOMERS

Revenue is recognized to the extent that the Group has delivered goods or rendered services under an agreement, the amount of revenue can be reliably measured and it is probable that the economic benefits associated with the transaction will flow to the Group. Revenue is measured at the fair value of the consideration receivable, exclusive of value added taxes and discounts.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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6. REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

The Group obtains revenue from providing mobile and fixed telecommunication services (access charges, voice and video calls, messaging, interconnect fees, fixed and mobile broadband, tv and musical content and connection fees), financial services, integration services, cloud services, tickets distribution, as well as selling equipment, accessories and software. Products and services may be sold separately or in bundle packages. The most significant part of revenue relates to prepaid contracts.

Revenue for access charges, voice and video calls, rendering of cloud services, messaging, interconnect fees and fixed and mobile broadband is recognized as services are rendered. This is based upon either usage (minutes of traffic processed, volume of data transmitted) or passage of time (monthly subscription fees). Revenue from the sale of prepaid credit is deferred until such time as the customer consumes the services or the credit expires.

Revenue from the provision of TV and music content is recognized as the Group renders the service and is recorded either at the gross amount billed to the customers or in the amount of commission fee receivable by the Group.

Revenue from commission services for tickets distribution is recognized as services are rendered.

Revenue from sales of goods (mainly mobile handsets, other mobile devices, software licences) is recognized when the significant risks and rewards of ownership have been transferred to the customer

For bundled packages, the Group accounts for individual products and services separately if they are distinct, which means that a product or service, as well as the customer benefit, is separately identifiable from other items in the bundled package and a customer can benefit from it. The arrangement consideration is allocated to each separate product and service, based on its relative fair value. The determined fair value of individual elements is generally based on prices at which the deliverable is regularly sold on a stand-alone basis after considering any appropriate volume discounts.

The Group provides retrospective volume discounts under roaming agreements with international and local mobile operators. To estimate the variable consideration in relation to these discounts, the Group uses original data traffic adjusted on a monthly basis to reflect newly-available information. The resulting liability for the expected future discounts is recognized as a reduction of revenue within trade and other payables in the accompanying consolidated statement of financial position.

For contracts that permit customers to return acquired mobile devices, the amount of recognized revenue is adjusted for expected product return or refunds, which are estimated based on the basis of historical data. The respective refund liability is recorded as provision in the accompanying consolidated statement of financial position.

Revenue from the provision of financial services mainly relates to interest bearing assets of MTS Bank. Such revenue is recognized on an accrual basis using the effective interest method. Loan origination fees are deferred together with the related direct costs and are recognised as an adjustment to the effective interest rate of the loan. Commission revenue which is also a significant part of MTS Bank revenue is either recognized at the moment the related operation occurs, or during the period of customer contract duration.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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6. REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

Revenue from integration services mainly relates to project type contracts and is determined by reference to the stage of completion of each respective projects. The stage of completion is calculated using the input method—based on the proportion of costs incurred for work performed to date to the estimated total contract costs. Revenue is recognized cumulatively as total revenue under the project multiplied by percentage of completion as at reporting date. When it is probable that total contract costs will exceed the total contract revenue, the expected loss is recognized as an expense immediately.

Contract balances

Contract balances include trade receivables related to the recognized revenue, contract assets and contract liabilities.

Trade receivables represent an unconditional right to receive consideration (primarily in cash).

Contract assets represent accrued revenues that have not yet been billed to customers due to certain contractual terms other than the passage of time. This is the case in a bundled offering which combines the sale of a mobile device and the provision of mobile services for a fixed-period, where the mobile device is invoiced at a reduced price leading to the reallocation of a portion of amounts invoiced for mobile communication services to the supply of the mobile phone. The excess of the amount allocated to the mobile phone over the price invoiced is recognized as a contract asset and is thus transferred to trade receivables as the service is invoiced. The other part of contract assets relates to the Group's rights to consideration for work completed but not yet billed for integration services projects.

Contract liabilities represent amounts paid by customers to the Group before receiving the goods and/or services promised in the contract. This is the case for advances received from customers or amounts invoiced or amounts invoiced and paid for goods or services that are yet to be transferred.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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6. REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers:

	December 31,	
	2019	2018
Receivables	35,019	28,097
Contract assets	149	105
Total assets	35,168	28,202
Less current portion	(31,611)	(28,192)
Total non-current assets	3,557	10
Contract liabilities	(21,307)	(22,155)
<i>Thereof:</i>		
<i>Mobile and fixed telecommunication services</i>	(18,849)	(20,094)
<i>Other services</i>	(2,115)	(1,741)
<i>Loyalty programme</i>	(343)	(320)
Total liabilities	(21,307)	(22,155)
Less current portion	20,718	21,597
Total non-current liabilities	(589)	(558)

Changes in the contract liabilities balances during the period are as follows:

	2019	2018
Balance as of January 1	(22,155)	(18,461)
Revenue recognised that was included in the contract liability balance at the beginning of the period	19,951	10,999
Increase due to cash received, excluding amount recognised as revenue during the period	(22,659)	(14,390)
Disposal of VF Ukraine	3,556	—
Business combinations	—	(303)
Balance as of December 31	(21,307)	(22,155)

The Group expects to recognize revenue related to performance obligations that were unsatisfied (or partially unsatisfied) as of December 31, 2019 as follows:

	2020	2021 - 2025	2026 - 2030	After 2030	Total
Mobile telecommunication services	18,260	581	8	—	18,849
Other services	2,115	—	—	—	2,115
Loyalty programme	343	—	—	—	343

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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6. REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

The total transaction price assigned to unsatisfied performance obligations is presented below:

	<u>2020</u>	<u>2021 - 2025</u>	<u>2026 - 2030</u>	<u>After 2030</u>	<u>Total</u>
Telecommunication services	2,398	3,986	151	119	6,654
Integration services	174	181	—	—	355
Sale of goods	2,026	2,917	—	—	4,943

The transaction price assigned to unsatisfied performance obligations with undefined year of recognition within the period from 2020 to 2025 is amounted to RUR 16,942 million. The period of recognition depends on the date of placement an order by a customer.

Cost to obtain and fulfill a contract

The Group capitalizes certain incremental costs incurred in acquiring or fulfilling a contract with a customer if the management expects these costs to be recoverable.

The Group uses a practical expedient from IFRS 15 which allows to expense contract costs as incurred when the expected contract duration is one year or less.

Costs of acquiring a contract include commissions paid to a third-party distributors as well as the associated remuneration of the Group's commercial employees for obtaining a contract with a customer with the expected duration of more than twelve months. These costs are amortized on a straight-line basis over the average life of a long-lived subscriber.

Costs to fulfill a contract mainly relate to costs of equipment transferred to the subscribers required for the provision of services. These costs are amortized on a straight-line basis generally for the period of average subscriber life.

As of December 31, 2019 and December 31, 2018 the balances of cost to obtain and fulfill contracts capitalized by the Group amounted to:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Cost to obtain contracts		
Gross book value	13,635	23,360
Accumulated amortization	(6,394)	(16,343)
Cost to fulfill contracts		
Gross book value	2,918	2,180
Accumulated amortization	(1,221)	(566)

Amortization expense related to cost to obtain and fulfill contracts recognized for the years ended December 31, 2019 and 2018 amounted to RUB 3,940 million and RUB 4,371 million, respectively. There was no impairment loss relating to the costs capitalized.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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7. SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative expenses for the years ended December 31, 2019, 2018 and 2017 comprised the following:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Salaries and social contributions	51,091	44,932	43,239
Advertising and marketing expenses	10,931	9,288	7,882
General and administrative expenses	7,723	7,703	7,957
Universal service fund	3,587	3,535	3,462
Cash collection commission	3,504	3,660	3,613
Dealers commission	3,081	2,760	5,798
Utilities and maintenance	2,809	2,821	9,297
Consulting expenses	2,652	1,980	1,905
Taxes other than income tax	2,490	3,766	3,676
Billing and data processing	857	978	1,041
Other	2,071	2,004	2,479
Total	<u>90,796</u>	<u>83,427</u>	<u>90,349</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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8. FINANCE INCOME AND COSTS

Finance income and costs for the years ended December 31, 2019, 2018 and 2017 comprised the following:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Interest expense:			
—Loans and notes	30,105	25,589	22,088
—Amortization of debt issuance costs	489	415	623
—Lease obligations ⁽¹⁾	13,416	12,852	954
—Provisions: unwinding of discount	113	151	70
Total interest expense	44,123	39,007	23,735
Loss on financial instruments	780	1,008	2,486
Other finance costs	153	47	97
Total finance costs	45,056	40,062	26,318
Less: amounts capitalized on qualifying assets ⁽²⁾	(550)	(460)	(307)
Debt modification/derecognition and other loss/(gain)	2,862	(2,614)	—
Finance costs	47,368	36,988	26,011
Finance income on loans and receivables			
—Interest income on bank deposits	3,322	4,788	4,525
—Interest income on loans issued	91	357	330
—Other finance income	943	442	400
Finance income	4,356	5,587	5,255
Net finance costs	43,012	31,401	20,756

(1) Starting from January 1, 2018 the Group has applied IFRS 16, “Leases”

(2) The annual weighted average capitalization rates of 8.1%, 8.2% and 8.2% were used to determine the amount of capitalized interest for the years ended December 31, 2019, 2018 and 2017, respectively.

9. OPERATIONS IN TURKMENISTAN

In September 2017, the Group’s subsidiary in Turkmenistan MTS Turkmenistan or MTS-TM, suspended the provision of telecommunication services to its subscribers, due to the termination by Turkmen state-owned companies and state authorities of line rental, frequency allocation, interconnect, and other agreements necessary to provide telecommunication services. The license for the provision of telecommunication services on the territory of Turkmenistan was valid until July 2018.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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9. OPERATIONS IN TURKMENISTAN (Continued)

The Group considered these facts as impairment indicators and consequently determined that all long-lived assets attributable to the Turkmenistan subsidiary were impaired. The Group also assessed the recoverability of the current assets and recorded a provision for those that were considered to be impaired. No indicators of impairment were identified in respect of cash and cash equivalents attributable to MTS-TM. Total impairment charges recognized in the Group’s consolidated statement of profit or loss for the year ended December 31, 2017 were as follows:

Impairment of long-lived assets	3,204
Current provision for income tax	100
Provision for doubtful accounts	74
Other operating expenses	37
Taxes other than income tax	20
Deferred income tax	<u>(69)</u>
	<u>3,366</u>

In July 2018, the Group filed a Request for Arbitration against the Sovereign State of Turkmenistan with the World Bank’s International Center for Settlement of Investments Disputes (“ICSID”) in order to protect its legal rights and investments in Turkmenistan. As of December 31, 2019 the case was pending.

In December 2018 the Group started dismantling its network equipment in Turkmenistan and accrued a dismantlement provision of RUB 228 million. As of December 31, 2019 the dismantling of terminal network equipment was finalized.

10. OPERATIONS IN UKRAINE

In November, 2019, the Group entered into an agreement with a third party to dispose its subsidiary Preludium B.V., a 100% owner of VF Ukraine PrJSC, Telecom Kyiv PTT, VF Retail LLC and IT SmartFlex LLC, which carried out the Group’s operations in Ukraine and constituted “Ukraine” operating segment. The disposal was completed on December 3, 2019.

The results of operations in Ukraine were reported as discontinued operations in the accompanying consolidated statement of profit or loss for the year ended December 31, 2019. The consolidated statements of profit or loss for the years ended December 31, 2018 and December 31, 2017 were retrospectively restated to present operations in Ukraine as discontinued operations.

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10. OPERATIONS IN UKRAINE (Continued)

As of December 3, 2019, the carrying amounts of assets and liabilities pertaining to the discontinued operation and reconciliation of the loss on disposal were as follows:

Property, plant and equipment	26,037
Rights-of-use assets	8,175
Intangible assets	18,124
Goodwill	114
Other non-current assets	1,534
Other current assets	10,760
Cash and cash equivalents	4,181
Non-current liabilities	(9,009)
Current liabilities	(17,979)
Accumulated other comprehensive loss	7,948
Total consideration	<u>(44,386)</u>
In the form of:	
Cash and cash equivalents (USD 645 million)	(41,567)
Deferred consideration (USD 12 million)	(774)
Fair value of contingent consideration (variable earn-out) as of December 3, 2019 (USD 32 million)	(2,045)
Loss on disposal	5,499
Net cash inflow arising on disposal:	37,386
Cash consideration received	41,567
Less: cash and cash equivalents disposed of	(4,181)

The deferred consideration will be settled in cash by the purchaser on or before September 1, 2020.

In the event the results of disposed operation achieve certain performance criteria for the periods starting 2019 and ending 2022 as specified in an ‘earn out’ clause of the sale agreement, additional consideration will be payable by the buyer. As of December 3, 2019 the Group recognized contingent consideration receivable as a financial asset at fair value through profit or loss in the amount of RUB 2,045 million. As of December 31, 2019, the fair value of the financial asset amounted to RUB 2,013 million. A gain of RUB 48 million resulting from fair value measurement and loss of RUB 80 million resulting from currency revaluation were recognized in discontinued operations in the consolidated statement of profit or loss.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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10. OPERATIONS IN UKRAINE (Continued)

The results of the “Ukraine” operating segment reported in discontinued operations included in the profit in the consolidated statements of profit or loss were as follows:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenue	36,675	28,826	24,992
Expenses	<u>(28,564)</u>	<u>(22,094)</u>	<u>(18,412)</u>
Profit before tax	<u>8,111</u>	<u>6,732</u>	<u>6,580</u>
Attributable tax expense	<u>(2,018)</u>	<u>(1,575)</u>	<u>(1,197)</u>
Profit for the period	<u>6,093</u>	<u>5,157</u>	<u>5,383</u>
Loss on disposal	(5,499)	—	—
Currency revaluation loss on deferred consideration . . .	(30)	—	—
Earn-out revaluation	<u>(32)</u>	—	—
Net income attributable to discontinued operations . . .	<u>532</u>	<u>5,157</u>	<u>5,383</u>

Cash flows from (used in) discontinued operation are presented as follows:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Net cash provided by operating activities	17,343	16,773	11,271
Net cash used in investing activities	<u>(13,046)</u>	<u>(15,724)</u>	<u>(10,276)</u>
Net cash used in financing activities	(1,114)	(1,057)	(72)

11. INCOME TAX

Income taxes of the Group’s Russia-incorporated entities have been calculated in accordance with Russian legislation and are based on the taxable profit for the period. The corporate income tax rate in Russia is 20%. The withholding tax rate on dividends paid within Russia is 13%. The foreign subsidiaries of the Group pay withholding taxes in their respective jurisdictions. Deferred tax assets and liabilities are recognized for temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases of assets and liabilities that will result in future taxable or deductible amounts. The deferred tax assets and liabilities are measured using the enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income.

Significant components of income tax expense were as follows;

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Current income tax charge	20,759	19,215	19,760
Prior period tax adjustments	<u>(90)</u>	<u>(133)</u>	<u>673</u>
Total current income tax	<u>20,669</u>	<u>19,082</u>	<u>20,433</u>
Deferred tax	<u>(4,919)</u>	<u>(3,687)</u>	<u>(2,653)</u>
Income tax expense on continuing operations	<u>15,750</u>	<u>15,395</u>	<u>17,780</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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11. INCOME TAX (Continued)

Income tax expense on continuing operations excludes the amounts from the discontinued operations of RUB 2,018 million, RUB 1,575 million and RUB 1,197 million for the years ended December 31, 2019, 2018 and 2017, respectively, which have been included in profit / (loss) from discontinued operations in the accompanying consolidated statements of profit or loss (Note 10).

The statutory income tax rates in jurisdictions in which the Group operates for 2019, 2018 and 2017 were as follows: Russia and Armenia—20%, Turkmenistan—8%, Czech Republic—19%. The Russian statutory income tax rate of 20% reconciled to the Group's effective income tax rate for the years ended December 31, 2019, 2018 and 2017 as follows:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Statutory income tax rate for the year	20.0%	20.0%	20.0%
Adjustments:			
Expenses not deductible for tax purposes	2.2	0.9	1.8
Prior periods tax effects	(0.1)	(0.2)	0.9
Different tax rate of foreign subsidiaries	(0.4)	(0.2)	0.2
Earnings distribution from subsidiaries	2.0	(0.5)	1.0
Change in fair value of derivative financial instruments	0.2	—	0.5
Derecognition of deferred tax assets	(0.5)	0.1	0.7
Other	0.2	(0.1)	0.7
Effective income tax rate	<u>23.6%</u>	<u>20.0%</u>	<u>25.8%</u>

The Group reported the following deferred income tax assets and liabilities in the consolidated statement of financial position:

	<u>2019</u>	<u>2018</u>
Deferred tax assets	9,975	11,190
Deferred tax liabilities	(17,866)	(24,439)
Net deferred tax liabilities	<u>(7,891)</u>	<u>(13,249)</u>

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11. INCOME TAX (Continued)

Movements in the deferred tax assets and liabilities for the year ended December 31, 2019 were as follows:

	December 31, 2018	Recognised in profit / loss	Recognised in other comprehensive income	Effect of acquisitions	Effect of disposals	December 31, 2019
Assets / (liabilities) arising from tax effect of:						
Property, plant and equipment	(16,238)	(1,168)	42	57	(647)	(17,954)
Other intangible assets	(6,080)	(448)	2	(5)	(33)	(6,564)
Potential distributions from/to Group's subsidiaries/associates	(4,019)	(462)	135	—	1,916	(2,430)
Licenses	(1,917)	154	24	—	—	(1,739)
Customer base	(706)	159	—	(29)	—	(576)
Capitalization of cost to obtain and fulfill contracts	(1,321)	(148)	(1)	—	22	(1,448)
Accrued expenses for services, write-down of inventories and allowance for ECL	9,891	2,154	18	—	(506)	11,557
Right-of-use assets and lease obligations	2,564	1,024	6	—	(74)	3,520
Loss carryforward	4,256	275	—	103	—	4,634
Provision for investment in Delta Bank in Ukraine	367	—	26	—	(393)	—
Contract liabilities	954	192	(6)	—	90	1,230
Debt modification	(1,075)	642	—	—	—	(433)
Hedge and other	75	2,172	58	—	7	2,312
Net deferred tax liability	<u>(13,249)</u>	<u>4,546</u>	<u>304</u>	<u>126</u>	<u>382</u>	<u>(7,891)</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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11. INCOME TAX (Continued)

Movements in the deferred tax assets and liabilities for the year ended December 31, 2018 were as follows:

	<u>December 31, 2017</u>	<u>Adjustment on initial application of new IFRS standards</u>	<u>Recognised in profit / loss</u>	<u>Recognised in other comprehensive income</u>	<u>Effect of acquisitions</u>	<u>December 31, 2018</u>
Assets / (liabilities) arising from tax effect of:						
Property, plant and equipment	(18,921)	1,632	513	143	395	(16,238)
Other intangible assets . .	(7,454)	—	1,218	9	147	(6,080)
Potential distributions from/ to Group's subsidiaries/ associates .	(4,043)	—	418	(394)	—	(4,019)
Licenses	(1,994)	—	148	(71)	—	(1,917)
Customer base	(536)	—	279	—	(449)	(706)
Capitalization of cost to obtain and fulfill contracts	—	(1,290)	(31)	—	—	(1,321)
Accrued expenses for services, write-down of inventories and allowance for ECL . . .	8,547	142	(823)	93	1,932	9,891
Right-of-use assets and lease obligations	2,363	(1,632)	1,833	—	—	2,564
Loss carryforward	2,143	—	1,362	—	751	4,256
Provision for investment in Delta Bank in Ukraine	601	—	(319)	85	—	367
Contract liabilities	562	717	(340)	15	—	954
Debt modification	—	(597)	(478)	—	—	(1,075)
Hedge and other	504	—	(1,001)	16	556	75
Net deferred tax liability .	<u>(18,228)</u>	<u>(1,028)</u>	<u>2,779</u>	<u>(104)</u>	<u>3,332</u>	<u>(13,249)</u>

The Group recognizes deferred income tax on future dividend distributions from foreign subsidiaries and associates which are based on the cumulative undistributed earnings of those foreign subsidiaries in accordance with local statutory accounting regulations.

The Group recognizes deferred tax assets in respect of tax losses carried forward to the extent that realization of tax losses against future taxable profit is probable. Deferred tax assets related to tax losses of the Group's subsidiaries are recognized according to the fact that certain tax planning opportunities are available to these subsidiaries that will create taxable profit in the period in which the unused tax losses can be utilized. The amount of the deferred tax asset considered realizable, however, could be remeasured if estimates of future taxable income are changed.

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11. INCOME TAX (Continued)

Federal law 401-FZ dated November 30, 2016 cancelled the time limit of prior periods' tax losses carryforward, which had been previously restricted to 10 years. Furthermore, the law specified that for the years 2017-2020 prior periods' tax losses carried forward should not exceed 50% of the tax base.

Unused tax losses, for which deferred tax assets were not recognized in the consolidated statements of financial position as of December 31, 2019 and 2018 amounted to RUB 41,816 million and RUB 42,271 million, respectively.

The Group accrued RUB 825 million and RUB 850 million as of December 31, 2019 and 2018, respectively, as a component of income tax payable in relation to uncertain income tax positions.

A provision is recognised for those matters for which the tax determination is uncertain but it is considered probable that there will be a future outflow of funds to a tax authority. The provisions are measured at the best estimate of the amount expected to become payable.

12. EARNINGS PER SHARE

The following table sets forth the computation of earnings per share for the years ended December 31:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Numerator:			
Profit for the year from continuing operations attributable to the owners of the company	50,265	60,740	50,659
Profit / (loss) for the year from discontinued operations attributable to the owners of the company	3,976	(53,892)	5,383
Denominator, in thousands:			
Weighted-average ordinary shares outstanding	1,780,935	1,873,563	1,953,779
Employee stock options	2,682	2,158	1,779
Weighted-average diluted shares outstanding	<u>1,783,617</u>	<u>1,875,721</u>	<u>1,955,558</u>
Earnings per share—basic, Russian Rubles	30.45	3.66	28.69
Basic EPS from continuing operations	28.22	32.42	25.93
Basic EPS from discontinued operations	2.23	(28.76)	2.76
Earnings per share—diluted, Russian Rubles	30.41	3.65	28.66
Diluted EPS from continuing operations	28.18	32.38	25.91
Diluted EPS from discontinued operations	2.23	(28.73)	2.75

13. CASH AND CASH EQUIVALENTS

Cash and cash equivalents represent cash on hand and in bank accounts, as well as short-term bank deposits, which have original maturities of less than three months. Other short-term highly liquid investments are treated as cash equivalents only if they are held for the purpose of meeting short-term cash commitments, are readily convertible to known amounts of cash and are subject to insignificant risk of change in value.

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13. CASH AND CASH EQUIVALENTS (Continued)

Cash and cash equivalents comprised the following:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Cash and cash equivalents at banks and on hand in:		
Russian Rubles	27,749	17,012
US Dollars	1,014	4,873
Euro	2,751	2,073
Ukraine Hryvna	224	1,548
Turkmenian Manat	419	721
Other	844	954
Short-term deposits with an original maturity of less than 92 days:		
Russian Rubles	4,859	52,764
Ukraine Hryvna	206	3,215
Euro	—	915
Other	4	—
Total cash and cash equivalents	<u>38,070</u>	<u>84,075</u>

14. SHORT-TERM INVESTMENTS

Short-term investments represent investments in loans and time deposits, which have original maturities of longer than three months and are repayable in less than twelve months, as well as investment in debt and equity securities. Deposits, loans and debt securities are carried at amortized cost as they are held to collect contractual cash flows in the form of payments of principal and interest. Assets in Sistema Capital trust management as well as mutual funds are carried at fair value through profit and loss (“FVTPL”), as this portfolio of assets is neither held to collect contractual cash flows nor held both to collect contractual cash flows and to sell financial assets.

Short-term investments are presented net of allowance for expected credit losses (“ECL”).

Loans to customers issued by MTS Bank are presented separately within Bank deposits and loans in the accompanying consolidated statements of financial position.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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14. SHORT-TERM INVESTMENTS (Continued)

The Group's short-term investments comprised the following:

	Category	December 31,	
		2019	2018
Mutual funds (Notes 30)	At FVTPL	9,349	—
Assets in Sistema-Capital trust management (Notes 27, 30)	At FVTPL	8,195	11,644
Notes / loans	At amortized cost	6,376	22,241
Deposits	At amortized cost	1,699	14,388
Other		—	70
Short-term investments, gross		25,619	48,343
Allowance for ECL		(1)	(480)
Total short-term investments		25,618	47,863

15. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

Associates are those entities where the Group exercises significant influence, and they are accounted for using the equity method. Significant influence is the power to participate in the financial and operating policy decisions of the investee but does not equate to control or joint control over those policies. These entities are recognized at cost at the time of acquisition and adjusted thereafter to recognize the Group's share of the profit or loss and other comprehensive income. The carrying amount of the investment in such entities may include goodwill as the positive difference between the cost of the investment and Group's proportionate share in the fair-values of the entity's identifiable assets and liabilities.

Joint ventures are joint arrangements whereby the parties that have joint control of the arrangement and have rights to the net assets of the arrangement. The Group recognizes its interest in a joint venture where it has joint control of the investment and accounts for that investment using the equity method.

The Group presents its share in profits or losses in associates and joint ventures within operating profit if those interests are viewed as part of Group's core operations. As of December 31, 2019, only MTS Belarus was considered as part of the Group's core operating activity. Shares in profits and losses of other Group's associates and joint ventures were presented as non-operating items.

The Group's investments in associates and joint ventures comprised the following:

	Country of operations	Operating activity	December 31,	
			2019	2018
MTS Belarus	Belarus	telecommunications	4,502	4,051
OZON Holdings Ltd	Russia	e-commerce	—	4,797
YouDo	Russia	classifieds	724	788
Sistema-Rentnaya Nedvizhimost	Russia	property	658	690
		investments mutual fund		
Other unquoted companies	Russia		566	409
Total investments in associates and joint ventures			6,450	10,735

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15. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Continued)

MTS Belarus

The reconciliation of summarized financial information of MTS Belarus to the carrying amount of the Group's interest in the associate is presented as follows:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Assets		
Non-current assets	19,496	17,659
Current assets	11,536	11,652
Liabilities		
Non-current liabilities	(9,849)	(7,089)
Current liabilities	(11,995)	(13,955)
Total identifiable net assets	9,188	8,267
The Group's share in the associate	49%	49%
The Group's share of identifiable net assets	4,502	4,051
Carrying amount of the Group's interest	4,502	4,051

The composition of the Group's share of the profit of MTS Belarus is as follows:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenue	32,593	27,695	23,037
Net profit for the year	9,354	7,752	6,552
The Group's share of the profit of the associate for the year	4,583	3,799	3,210
Other comprehensive (loss)/income for the year (currency translation adjustment)	(842)	648	(525)
Total comprehensive income for the year	8,512	8,400	6,027
The Group's share of total comprehensive income of the associate for the year	4,171	4,116	2,953
Dividends received	3,587	3,691	3,590

YouDo

In September 2018, the Group acquired a 13.68% ownership interest in Youdo Web Technologies Limited (YouDo), a Russian online service provider matching freelance labor supply to demand for everyday and business tasks, for a cash contribution of RUB 824 million. Although the Group holds less than 20% of equity interests in YouDo, it has significant influence over the investee based on its ownership of equity shares, representation on the investee's board of directors and certain additional rights related to the decision-making process on key issues.

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15. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Continued)

Sistema-Rentnaya Nedvizhimost

In December 2018, MTS Bank sold 40.26% share in a property investments mutual fund Sistema-Rentnaya Nedvizhimost to Business Nedvizhimost, a subsidiary of Sistema, for cash consideration of RUB 450 million. The Group classified the remaining investment in the mutual fund as investment in joint venture, based on the existence of a joint decision-making process and the rights to net assets of the mutual fund. The Group applied the equity method of accounting to its remaining share in the mutual fund.

SWIPGLOBAL

In December 2019, the Group acquired a 15.01% ownership interest in SWIPGLOBAL Limited (SWIPGLOBAL), a parent company of Smart Wallet LLC, Russian provider of authorization and payment solutions, for a cash contribution of RUB 75 million. Although the Group holds less than 20% of the equity interests in SWIPGLOBAL, it has significant influence over the investee based on its representation on the investee's board of directors and certain additional rights related to the decision-making process on key issues.

MTS Bank

In May 2017, MTS Bank disposed of a 47% stake in East-West United Bank to Sistema, retaining less than 20% and losing control. Consequently, the accumulated foreign currency translation reserve in the amount of RUB 659 million was derecognized from the accumulated other comprehensive income of the Group.

In July 2018, the Group increased its ownership share in its associate MTS Bank from 26.6% to 55.4% and obtained control over the entity. The Group discontinued the use of the equity method for accounting of investment in MTS Bank and accounted for the acquisition as a transaction under common control directly in equity (Note 4).

The Group's share in the net losses of MTS Bank prior to discontinuing use of the equity method was included in the non-operating share of the loss of the associates and joint ventures in the accompanying consolidated statement of profit or loss for the years ended December 31, 2018 and 2017 and is presented as follows:

	<u>2018</u>	<u>2017</u>
Total interest income	9,289	14,204
Total interest (expense)	(3,799)	(6,505)
Net loss for the period	<u>(609)</u>	<u>(593)</u>
The Group's share of the loss of the associate for the period	<u>162</u>	<u>109</u>
Other comprehensive loss for the period	(614)	(2,000)
Total comprehensive loss for the period	<u>(1,223)</u>	<u>(2,593)</u>
The Group's share of the total comprehensive loss for the period	<u>(326)</u>	<u>(690)</u>

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15. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (Continued)

OZON

In 2014, the Group acquired a 10.82% stake in OZON Holdings Limited (OZON), a leading Russian e-commerce company. The Group accounted for its investment under the equity method, as the Group's representation on the investee's board of directors and a number of veto rights provided it with a significant influence over the investee.

In 2018, the Group acquired additional equity interests in OZON through several transactions, which resulted in increase of the Group's share in OZON from 11.19% as of December 31, 2017 to 18.69% as of December 31, 2018. In March 2019, the Group disposed its 18.69% interest in OZON to Sistema for RUB 7,902 million (of which RUB 3,000 million was paid by Sistema in March 2019, RUB 2,450 million is due in July 2020 and RUB 2,452 million is due in July 2021). As of December 31, 2019 the Group has retained no interest in OZON.

As a result of the transaction the Group recognized a gain on disposal which was included in the non-operating share of the income of the associates and joint ventures in the accompanying consolidated statement of profit or loss:

	<u>2019</u>
Proceeds from disposal	7,902
Less: carrying amount of investment on the date of disposal	(4,065)
Gain recognized	<u>3,837</u>

A current tax expense of RUB 420 million is attributable to the aforementioned gain.

The following table is the aggregate financial information of investments in OZON (prior to disposal in March 2019) and other individually insignificant associates and joint ventures held by the Group:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Net loss for the year	2,448	4,600	1,760
The Group's share of the loss of associates and joint ventures for the year	341	747	327
Other comprehensive income for the year	—	—	—
Total comprehensive loss for the year	2,448	4,600	1,760
The Group's share of total comprehensive loss of associates and joint ventures for the year	341	747	327

16. OTHER INVESTMENTS

Other investments consist primarily of long-term deposits, which are repayable in more than a year, loans, debt securities and equity holdings in private companies. Deposits, loans and notes are carried at amortized cost as they are held to collect contractual cash flows in the form of payments of principal and interest.

Loans to customers issued by MTS Bank are presented separately within Bank deposits and loans.

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16. OTHER INVESTMENTS (Continued)

Investments in shares of the companies over which the Group does not have control or an ability to exercise significant influence are accounted for at amortized cost.

Other investments are presented net of allowance for expected credit losses (ECL).

Other investments of the Group comprised the following:

	<u>Category</u>	<u>December 31,</u>	
		<u>2019</u>	<u>2018</u>
Debt securities	At amortized cost	9,381	15,327
Deposits	At amortized cost	124	139
Loans and unquoted notes	At amortized cost	36	12
Other	At amortized cost	1,656	1,397
Other investments (Gross)		<u>11,197</u>	<u>16,875</u>
Allowance for ECL		(2)	(2)
Total other investments		<u>11,195</u>	<u>16,873</u>

17. TRADE AND OTHER RECEIVABLES

Trade and other receivables are carried at transaction price. The carrying value of all trade receivables is reduced by appropriate allowances for ECL.

For trade receivables the Group applies a simplified approach and calculates ECL based on lifetime expected credit losses. For receivables from subscribers and dealers and partially for other trade receivables the allowance for ECL is computed using the provision matrix. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns. The calculation reflects the probability-weighted outcome and all reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, receivables from subscribers are written-off if past due for more than 150 days. Receivables other than from subscribers are written-off upon the expiration of the limitation period or before based on results of internal investigations.

MTS Group accounts for Receivables from handset sales financing as a part of current trade and other receivables and non-current other non-financial assets. These receivables are measured based on fair value basis using effective rate approach. Receivables from handset sales financing are written-off if past due for more than 720 days.

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17. TRADE AND OTHER RECEIVABLES (Continued)

Trade and other receivables current and non-current comprised the following:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Receivables from handset sales financing	16,845	14,252
Subscribers	10,980	13,495
Other trade receivables	4,427	4,049
Integration services	2,407	1,190
Roaming	1,912	3,763
Interconnect	1,624	2,193
Receivables from the sharing agreement	802	459
Receivables from sale of VF Ukraine	743	—
Bonuses from suppliers	724	492
Dealers	268	386
Other receivables	2,622	1,182
Allowance for ECL	<u>(4,203)</u>	<u>(4,318)</u>
Trade and other receivables, total	<u>39,151</u>	<u>37,143</u>
Less non-current portion	<u>(3,556)</u>	<u>(2,600)</u>
Trade and other receivables, current	<u>35,595</u>	<u>34,543</u>

The analysis of the age of trade and other accounts receivables and the respective allowance for ECL as of December 31, 2019:

<u>Receivables from subscribers and dealers and other trade receivables assessed for impairment based on provision matrix</u>	<u>Weighted-average loss rate</u>	<u>Gross carrying amount</u>	<u>Loss allowance (based on provision matrix)</u>	<u>Credit-impaired</u>
Current	—	21	—	No
1 - 30 days past due	4%	9,844	(395)	No
31 - 60 days past due	16%	522	(86)	No
60 - 90 days past due	38%	202	(77)	No
More than 90 days past due	64%	659	(421)	Yes
Total	<u>9%</u>	<u>11,248</u>	<u>(979)</u>	

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17. TRADE AND OTHER RECEIVABLES (Continued)

<u>Receivables other than from subscribers and dealers and handset sales financing assessed for impairment based on individual basis</u>	<u>Weighted-average loss rate</u>	<u>Gross carrying amount</u>	<u>Loss allowance (individually assessed)</u>	<u>Credit-impaired</u>
Current	1%	8,743	(77)	No
1 - 30 days past due	1%	2,020	(22)	No
31 - 60 days past due	2%	878	(14)	No
60 - 90 days past due	58%	1,581	(916)	No
More than 90 days past due	37%	2,039	(746)	Yes
Total	<u>12%</u>	<u>15,261</u>	<u>(1,775)</u>	

<u>Receivables from handset sales financing</u>	<u>Weighted-average loss rate</u>	<u>Gross carrying amount</u>	<u>Loss allowance (collectively assessed)</u>	<u>Credit-impaired</u>
Current	2%	15,085	(261)	No
1 - 30 days past due	15%	396	(60)	No
31 - 60 days past due	47%	125	(59)	No
60 - 90 days past due	61%	99	(60)	No
More than 90 days past due	88%	1,140	(1,009)	Yes
Total	<u>9%</u>	<u>16,845</u>	<u>(1,449)</u>	

The analysis of the age of trade and other accounts receivables and the respective allowance for ECL as of December 31, 2018:

<u>Receivables from subscribers and dealers and other trade receivables assessed for impairment based on provision matrix</u>	<u>Weighted-average loss rate</u>	<u>Gross carrying amount</u>	<u>Loss allowance (based on provision matrix)</u>	<u>Credit-impaired</u>
Current	1%	1,300	(5)	No
1 - 30 days past due	8%	9,707	(761)	No
31 - 60 days past due	14%	1,963	(285)	No
60 - 90 days past due	29%	719	(227)	No
More than 90 days past due	60%	1,282	(817)	Yes
Total	<u>14%</u>	<u>14,971</u>	<u>(2,095)</u>	

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17. TRADE AND OTHER RECEIVABLES (Continued)

<u>Receivables other than from subscribers and dealers and handset sales financing assessed for impairment based on individual basis</u>	<u>Weighted-average loss rate</u>	<u>Gross carrying amount</u>	<u>Loss allowance (individually assessed)</u>	<u>Credit-impaired</u>
Current	1%	6,656	(11)	No
1 - 30 days past due	1%	1,147	(3)	No
31 - 60 days past due	1%	615	(5)	No
60 - 90 days past due	2%	396	(9)	No
More than 90 days past due	19%	3,424	(689)	Yes
Total	5%	12,238	(717)	

<u>Receivables from handset sales financing</u>	<u>Weighted-average loss rate</u>	<u>Gross carrying amount</u>	<u>Loss allowance (collectively assessed)</u>	<u>Credit-impaired</u>
Current	2%	12,352	(205)	No
1 - 30 days past due	13%	414	(52)	No
31 - 60 days past due	43%	93	(40)	No
60 - 90 days past due	58%	68	(39)	No
More than 90 days past due	88%	1,325	(1,170)	Yes
Total	11%	14,252	(1,506)	

The following table summarizes changes in the allowance for expected credit losses for the year ended December 31, 2019 and 2018:

	<u>2019</u>	<u>2018</u>
Balance, beginning of the year calculated under IAS 39	—	(2,344)
Additional allowance required under IFRS 9	—	(233)
Balance, beginning of the year, calculated under IFRS 9	(4,318)	(2,577)
Allowance for ECL	(4,290)	(3,210)
Accounts receivable written off	4,276	2,948
Disposal/(Acquisition) of subsidiaries	129	(1,479)
Balance, end of the year	(4,203)	(4,318)

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17. TRADE AND OTHER RECEIVABLES (Continued)

Comparative information under IAS 39:

The following table summarizes changes in the allowance for doubtful accounts receivable:

	2017
Balance, beginning of the year	(2,160)
Allowance for doubtful accounts	(2,880)
Accounts receivable written off	2,696
Balance, end of the year	<u>(2,344)</u>

18. INVENTORIES

Inventories are stated at the lower of cost or net realizable value. Inventory cost is determined using the weighted average cost method. Handsets and accessories held for sale are expensed when sold. The Group regularly assesses its inventories for obsolete and slow-moving stock.

Inventory and spare parts comprised the following:

	December 31,	
	2019	2018
Handsets and accessories	12,412	15,191
Spare parts for telecommunication equipment	984	213
Advertising and other materials	912	916
SIM cards and prepaid phone cards	700	1,167
TV equipment for resale	494	676
Software and equipment for installation and resale	13	491
Total inventories	<u>15,515</u>	<u>18,654</u>

Other materials mainly consist of automobile and IT components, stationery, fuel and auxiliary materials.

Spare parts for telecommunication equipment included in the inventory are expected to be utilized within twelve months of the year end.

Expenses for writing inventory down to net realisable value were included in cost of goods in the consolidated statement of profit or loss.

For the years ended December 31, 2019, 2018 and 2017, cost of goods comprised the following expenses:

	2019	2018	2017
Amount of inventories recognized as an expense	61,699	59,931	43,288
Inventory obsolescence provision	2,659	3,697	2,691
Reversal of obsolescence provision	(469)	(375)	(504)
Total cost of goods	<u>63,889</u>	<u>63,253</u>	<u>45,475</u>

The reversal of the inventory obsolescence provision relates to handsets and accessories sold over the course of the Group's promotion campaigns. Inventories were sold with a positive margin.

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19. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment, including improvements, are stated at cost. Property, plant and equipment with a useful life of more than one year is capitalized at historical cost and depreciated on a straight-line basis over its expected useful life, as follows:

Network and base station equipment:	
Network infrastructure	7 - 15 years
Other	3 - 20 years
Land and buildings:	
Buildings	20 - 150 years
Leasehold improvements	the term of the lease
Office equipment, vehicles and other:	
Office equipment	1 - 7 years
Vehicles	2 - 10 years
Other	1 - 20 years

The estimated useful lives and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

The gain or loss arising on the disposal of an item of property, plant and equipment is determined as the difference between any sale proceeds and the carrying amount of the asset and is recognised in the consolidated statement of profit or loss.

Construction in progress and equipment held for installation is not depreciated until the constructed or installed asset is ready for its intended use. Maintenance and repair costs are expensed as incurred, while upgrades and improvements are capitalized.

Borrowing costs—Borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset during the construction phase that necessarily takes a substantial period of time are capitalized as part of property, plant and equipment until the asset is substantially ready for its intended use. The Group considers a construction period of more than six months to be substantial.

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19. PROPERTY, PLANT AND EQUIPMENT (Continued)

Balances of cost, accumulated depreciation, net book value as of December 31, 2019 and 2018 and movements of property, plant and equipment for the twelve months ended December 31, 2019, 2018 and 2017 were as follows:

	Network and base station equipment	Land and buildings	Office equipment, vehicles and other	Construction in progress and equipment for installation	Total
Cost					
January 1, 2017	548,058	25,443	49,250	17,366	640,117
Additions	2,094	15	302	57,170	59,581
Transferred into use	48,689	281	4,522	(53,492)	—
Arising on business combinations	10	2	5	—	17
Transfer to assets held for sale	(1,408)	—	(22)	—	(1,430)
Disposal	(27,092)	(684)	(5,460)	(1,315)	(34,551)
Other	327	(69)	(452)	7	(187)
Foreign exchange differences	(4,320)	36	(315)	(242)	(4,841)
December 31, 2017	566,358	25,024	47,830	19,494	658,706
Additions	2,777	4,887	777	63,047	71,488
Transferred into use	48,780	1,807	5,939	(56,526)	—
Arising on business combinations	123	3,912	1,323	18	5,376
Transfer to assets held for sale	(752)	(1,656)	(36)	—	(2,444)
Disposal	(25,963)	(322)	(2,712)	26	(28,971)
Transfer of financial leasing	(10,124)	—	(110)	—	(10,234)
Other	(1,043)	(536)	(319)	—	(1,898)
Foreign exchange differences	12,977	718	1,595	162	15,452
December 31, 2018	593,133	33,834	54,287	26,221	707,475
Additions	4,162	39	1,117	64,398	69,716
Transferred into use	51,130	1,803	12,919	(65,852)	—
Arising on business combinations	484	32	177	4	697
Transfer to assets held for sale	(1,573)	555	—	—	(1,018)
Disposal	(26,870)	(428)	(3,091)	(186)	(30,575)
Disposal of VF Ukraine (Note 10)	(62,196)	(2,128)	(6,966)	(2,060)	(73,350)
Other	730	1,042	(1,125)	80	727
Foreign exchange differences	1,889	(188)	55	55	1,811
December 31, 2019	560,889	34,561	57,373	22,660	675,483

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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19. PROPERTY, PLANT AND EQUIPMENT (Continued)

	Network and base station equipment	Land and buildings	Office equipment, vehicles and other	Construction in progress and equipment for installation	Total
Accumulated amortisation and impairment					
January 1, 2017	(320,948)	(8,152)	(38,176)	—	(367,276)
Charge for the year	(53,258)	(1,114)	(3,929)	—	(58,301)
Impairment	(2,175)	(393)	(295)	(764)	(3,627)
Transfer to assets held for sale	940	—	22	—	962
Disposal	24,248	284	5,053	—	29,585
Other	(458)	33	395	—	(30)
Foreign exchange differences	2,892	(79)	231	—	3,044
December 31, 2017	(348,759)	(9,421)	(36,699)	(764)	(395,643)
Charge for the year	(50,056)	(941)	(4,126)	—	(55,123)
Arising on business combinations	(13)	(368)	(922)	—	(1,303)
Impairment	—	361	151	—	512
Transfer to assets held for sale	223	455	37	—	715
Disposal	25,116	175	2,464	—	27,755
Transfer of financial leasing	2,070	—	41	—	2,111
Other	553	22	309	—	884
Foreign exchange differences	(9,148)	(500)	(1,292)	—	(10,940)
December 31, 2018	(380,014)	(10,217)	(40,037)	(764)	(431,032)
Charge for the year	(47,905)	(1,148)	(5,064)	—	(54,117)
Arising on business combinations	(290)	(5)	(104)	—	(399)
Impairment	—	—	—	—	—
Transfer to assets held for sale	762	(76)	(1)	—	685
Disposal	26,163	256	2,709	—	29,128
Disposal of VF Ukraine (Note 10)	40,717	1,056	5,540	—	47,313
Other	(962)	(616)	628	—	(950)
Foreign exchange differences	(767)	174	(39)	—	(632)
December 31, 2019	(362,296)	(10,576)	(36,368)	(764)	(410,004)
Net book value					
December 31, 2018	213,119	23,617	14,250	25,457	276,443
December 31, 2019	198,593	23,985	21,005	21,896	265,479

The amount of the compensation from third parties for items of property, plant and equipment that were accidentally damaged during construction in Moscow for the years ended December 31, 2019, 2018 and 2017 totaled RUB 2,034 million, RUB 1,304 million and RUB 1,231 million, respectively. This was included in the accompanying consolidated statements of profit or loss as component of other operating income.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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20. GOODWILL

Goodwill represents an excess of consideration transferred plus the fair value of any non-controlling interest (“NCI”) in the acquiree at the acquisition date over the fair values of the identifiable net assets of the acquired entity. Goodwill is not amortized, but is tested for impairment (Note 21).

The change in the net carrying amount of goodwill for the years ended December 31, 2019 and 2018 by reportable segments was as follows:

	<u>Russia Convergent</u>	<u>Moscow Fixed Line</u>	<u>Ukraine</u>	<u>Other</u>	<u>Total</u>
Balance at January 1, 2018					
Gross amount of goodwill	30,247	1,164	87	7,765	39,263
Accumulated impairment loss	(1,466)	—	—	(3,516)	(4,982)
	<u>28,781</u>	<u>1,164</u>	<u>87</u>	<u>4,249</u>	<u>34,281</u>
Acquisitions (Note 4)	1,877	213	—	2,512	4,602
Impairment	—	—	—	(524)	(524)
Currency translation adjustment	—	—	19	729	748
	<u>—</u>	<u>—</u>	<u>19</u>	<u>729</u>	<u>748</u>
Balance at December 31, 2018					
Gross amount of goodwill	32,124	1,377	106	11,006	44,613
Accumulated impairment loss	(1,466)	—	—	(4,040)	(5,506)
	<u>30,658</u>	<u>1,377</u>	<u>106</u>	<u>6,966</u>	<u>39,107</u>
Acquisitions (Note 4)	105	—	—	—	105
Reclassification	41	(41)	—	—	—
Disposal of VF Ukraine (Note 10)	—	—	(114)	—	(114)
Currency translation adjustment	—	—	8	(431)	(423)
	<u>—</u>	<u>—</u>	<u>8</u>	<u>(431)</u>	<u>(423)</u>
Balance at December 31, 2019					
Gross amount of goodwill	32,270	1,336	—	10,575	44,181
Accumulated impairment loss	(1,466)	—	—	(4,040)	(5,506)
	<u>30,804</u>	<u>1,336</u>	<u>—</u>	<u>6,535</u>	<u>38,675</u>

21. IMPAIRMENT REVIEW

Goodwill—The management of the Group performs impairment tests for the goodwill assigned to the cash-generating units at least annually, and also when there are any indications that the carrying amount of the cash generating unit (“CGU”) is impaired.

Investments in associates and joint ventures—The carrying amount of an investment accounted for under the equity method is tested for impairment provided there are indications of impairment. If the carrying amount of the investment exceeds its recoverable amount, an impairment loss is recognized in the amount of the difference. The recoverable amount is measured at the higher of fair value less costs of disposal and value in use.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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21. IMPAIRMENT REVIEW (Continued)

Tangible and intangible assets excluding goodwill—At the end of each reporting period, the management of the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the assets is estimated in order to determine the extent of the impairment loss.

When reviewing for indicators of impairment the management of the Group considers the relationship between its market capitalization and book value, changes in country risk premiums and other factors.

When the carrying amount of the CGU exceeds its recoverable amount, assets allocated to this CGU must be impaired.

The recoverable amounts of the CGUs are determined based on their value-in-use. In assessing value-in-use, the estimated future cash flows are discounted to 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 CGU. The discount rate applied to measure free cash flow is the weighted average cost of capital according to the finance structure established for each CGU.

Future cash flows calculations are based on a five-year operation plan, which is prepared and approved by the management of the Group. Estimation of future cash flows requires assumptions to be made in respect to uncertain factors, including the management's expectations of the following: OIBDA margin, timing and amount of future capital expenditure, terminal growth rates and appropriate discount rates to reflect the risks involved. Therefore, OIBDA margin and capital expenditures used for value in use calculation are primarily derived from internal sources, based on past experience and extended to include management expectations.

During the year ended December 31, 2019 the Group recognized no impairment charges.

Oblachniy Retail

During the year ended December 31, 2018 the Group recognized impairment of RUB 677 million in respect of the goodwill and non-current assets of CGU “Oblachniy Retail”.

CGU “Oblachniy Retail” operates as a retail software developer, cash register distributor and provider of integrated digital cash management solutions for business to business (“B2B”) clients. The impairment in CGU “Oblachniy Retail” reflects lower operating performance and uncertainty in respect to the ability to meet its operational targets. The recoverable amount of CGU “Oblachny Retail” was equal to RUB 765 million as of December 31, 2018, which includes inventory stock measured at net realizable value and related tax balances.

During 2019 there were not any changes in factors relevant to the impairment review.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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21. IMPAIRMENT REVIEW (Continued)

NVision Czech Republic

During the year ended December 31, 2017 the Group recognized impairment of RUB 571 million in respect of the non-current assets of CGU “NVision Czech Republic”, whereas during the year ended December 31, 2018, RUB 507 million were reversed as a result of the improvement in its operating performance.

CGU “NVision Czech Republic” tailors in-house software solutions, provides support and managed services to telecom operators, delivers electronic and mechanical manufacturing services.

The recoverable amount of CGU “NVision Czech Republic” was RUB 1,778 million as of December 31, 2018 compared to RUB 954 million as of December 31, 2017. However, the impairment charge was only reversed to the extent that it does not increase the carrying amount above what it would have been if the impairment charge had never been recognized.

During 2019 there were not any changes in factors relevant to the impairment review.

MTS Turkmenistan

During the year ended December 31, 2017 the Group recognized impairment charges of RUB 3,204 million in respect of the non-current assets of CGU “Turkmenistan”.

CGU “Turkmenistan” provided mobile services across multiple regions of Turkmenistan. The impairment in CGU “Turkmenistan” reflects uncertainty in respect of the ability to continue operations in Turkmenistan. In September, 2017, the Group’s subsidiary in Turkmenistan suspended the provision of telecommunication services to its subscribers, due to the termination by Turkmen state-owned companies and state authorities of line rental, frequency allocation, interconnect, and other agreements necessary to servicing clients. The recoverable amount of the CGU “Turkmenistan” was equal to nil as of December 31, 2018 and 2019.

Impairment losses and reversal of the impairment charges recognized during the years ended December 31, 2018 and 2017 are attributable to operating segments of the Group, reported as a part of the “Other” category, which does not constitute a reportable segment (Note 5).

The total amount of the impairment loss and reversal of impairment charges for the year ended December 31, 2018 and 2017 was allocated to the carrying amounts of long-lived assets as follows:

	2018		2017	
	Oblachniy Retail	NVision Czech Republic	Turkmenistan	NVision Czech Republic
Goodwill	524	—	—	—
Property, plant and equipment	13	(505)	3,063	564
Other intangible assets	140	(2)	141	7
Total	<u>677</u>	<u>(507)</u>	<u>3,204</u>	<u>571</u>

During the year ended December 31, 2019 MTS Turkmenistan sold a number of the long-lived assets impaired in prior periods, hence the reversal of the impairment in the amount of 148 mln RUB gain from disposal was recognized in the accompanying consolidated statements of profit or loss.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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21. IMPAIRMENT REVIEW (Continued)

Key assumptions used for value in use calculation:

The table below presents OIBDA margin applied for value in use calculation of related CGUs:

CGU	December 31,	
	2019	2018
Russia Convergent	42.4% - 43.5%	42.4% - 42.9%
Armenia	46.9% - 50.0%	45.0% - 47.4%
Moscow Fixed Line	52.9% - 56.6%	56.0% - 59.2%
NVision Czech Republic	3.2% - 3.9%	4.9% - 5.5%
Oblachniy Retail	negative	negative
Ukraine	n/a	50.0% - 51.6%

The table below presents capital expenditure as a percentage of revenue applied for value-in-use calculations of related CGUs:

CGU	December 31,	
	2019	2018
Russia Convergent	19.2%	19.0%
Armenia	15.6%	16.9%
Moscow Fixed Line	19.8%	21.6%
NVision Czech Republic	1.2%	1.3%
Oblachniy Retail	—	0.9%
Ukraine	n/a	18.4%

The terminal growth rate into perpetuity has been determined based on the nominal gross domestic product rates for the country of operation, adjusted for specific characteristic of the CGUs.

The table below presents terminal growth rates applied for value-in-use calculations of related CGUs:

CGU	December 31,	
	2019	2018
Russia Convergent	1%	1%
Armenia	nil	nil
Moscow fixed line	1%	1%
NVision Czech Republic	2%	2%
Oblachniy retail	3%	3%
Ukraine	n/a	3%

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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21. IMPAIRMENT REVIEW (Continued)

The table below presents pre-tax rates for the discounting of cash flows in functional currencies of related CGUs:

CGU	December 31,	
	2019	2018
Russia Convergent	14.1%	16.0%
Armenia	13.5%	15.2%
Moscow fixed line	14.1%	14.5%
NVision Czech Republic	6.1%	8.7%
Oblachniy retail	16.7%	20.1%
Ukraine	n/a	20.8%

Sensitivity analysis

Management believes that no reasonably possible change in any of the above key assumptions would cause the carrying value of any cash-generating unit to materially exceed its recoverable amount.

After the recognition of the impairment of non-current assets in which the carrying value of CGU “Oblachny Retail” is equal to the estimated recoverable amount, any adverse change in key assumptions would not, in isolation, cause a further impairment loss to be recognized.

22. OTHER INTANGIBLE ASSETS

Other intangible assets primarily consist of billing, telecommunication, accounting and office software as well as numbering capacity, customer base and licenses. These assets are assets with finite useful lives. They are initially recognized at cost and amortized on a straight-line basis over their estimated useful lives.

Balances of cost, accumulated amortization, net book value as of December 31, 2019 and 2018 and movements of other intangible assets for the twelve months ended December 31, 2019, 2018 and 2017 were as follows:

	Licenses	Right to use radio frequencies	Billing and other software	Client base	Numbering capacity	Cost to obtain contracts	Other	Total
<i>Useful life, years</i>	<i>1 to 20</i>	<i>1 to 15</i>	<i>1 to 25</i>	<i>4 to 31</i>	<i>2 to 15</i>	<i>2 to 5</i>	<i>1 to 10</i>	
Cost								
January 1, 2017	27,136	8,949	104,542	7,373	3,070	—	2,243	153,313
Additions	1,647	13	24,686	—	12	—	219	26,577
Arising on business combinations								
(Note 4)	260	—	163	—	—	—	150	573
Disposal	(93)	(1,112)	(8,429)	(50)	(158)	—	(166)	(10,008)
Other	(2)	1	(6)	—	—	—	57	50
Foreign exchange differences	(1,207)	—	(980)	—	(9)	—	(23)	(2,219)
December 31, 2017	27,741	7,851	119,976	7,323	2,915	—	2,480	168,286
Additions	7,479	19	20,884	—	10	3,961	401	32,754
Arising on business combinations								
(Note 4)	—	—	3,021	1,530	1	—	909	5,461

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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22. OTHER INTANGIBLE ASSETS (Continued)

	Licenses	Right to use radio frequencies	Billing and other software	Client base	Numbering capacity	Cost to obtain contracts	Other	Total
Effect on adoption of IFRS 15	—	—	—	—	—	19,197	—	19,197
Impairment	—	—	(168)	—	—	—	(20)	(188)
Disposal	(223)	(1,223)	(8,215)	(63)	(82)	—	(198)	(10,004)
Other	—	1	89	—	—	—	(46)	44
Foreign exchange differences	4,630	—	2,977	—	24	202	80	7,913
December 31, 2018	39,627	6,648	138,564	8,790	2,868	23,360	3,606	223,463
Additions	1,106	(38)	27,921	—	(2)	10,290	366	39,643
Arising on business combinations (Note 4)	—	—	6	(37)	2	—	61	32
Disposal of VF Ukraine (Note 10)	(19,149)	—	(15,770)	—	(136)	(1,826)	(692)	(37,573)
Impairment	—	(26)	—	—	—	—	—	(26)
Disposal	(84)	(865)	(11,564)	(2,823)	(64)	(18,281)	(208)	(33,889)
Other	4	(1)	93	—	—	—	(81)	15
Foreign exchange differences	201	(29)	718	—	9	92	44	1,035
December 31, 2019	21,705	5,689	139,968	5,930	2,677	13,635	3,096	192,700
Accumulated amortisation and impairment								
January 1, 2017	(9,963)	(4,829)	(55,132)	(4,075)	(2,861)	—	(1,325)	(78,185)
Charge for the year	(2,180)	(1,042)	(17,614)	(616)	(57)	—	(224)	(21,733)
Impairment	—	—	(148)	—	—	—	—	(148)
Disposal	92	1,108	8,345	50	158	—	157	9,910
Other	—	2	(17)	—	(4)	—	(31)	(50)
Foreign exchange differences	570	—	726	—	8	—	13	1,317
December 31, 2017	(11,481)	(4,761)	(63,840)	(4,641)	(2,756)	—	(1,410)	(88,889)
Charge for the year	(2,711)	(796)	(20,941)	(680)	(57)	(3,876)	(427)	(29,488)
Arising on business combinations	—	—	(1,785)	—	—	—	—	(1,785)
Effect on adoption of IFRS 15	—	—	—	—	—	(12,368)	—	(12,368)
Effect on assets impairment	—	—	44	—	—	—	6	50
Impairment	—	—	—	—	—	—	—	—
Disposal	193	971	7,994	63	82	—	180	9,483
Other	—	—	(70)	—	—	—	26	(44)
Foreign exchange differences	(2,114)	—	(2,187)	—	(23)	(99)	(37)	(4,460)
December 31, 2018	(16,113)	(4,586)	(80,785)	(5,258)	(2,754)	(16,343)	(1,662)	(127,501)
Charge for the year	(2,911)	(372)	(24,394)	(603)	(41)	(6,887)	(374)	(35,582)
Arising on business combinations	—	—	(2)	—	—	—	—	(2)
Disposal of VF Ukraine (Note 10)	5,155	—	12,657	—	129	1,208	301	19,450
Effect on assets impairment	—	—	—	—	—	—	—	—
Disposal	25	831	11,065	2,813	64	18,281	196	33,275
Other	(2)	—	(22)	—	—	(2,573)	17	(2,580)
Foreign exchange differences	664	29	(615)	—	(9)	(80)	(20)	(31)
December 31, 2019	(13,182)	(4,098)	(82,096)	(3,048)	(2,611)	(6,394)	(1,542)	(112,971)
Net book value								
December 31, 2018	23,514	2,062	57,779	3,532	114	7,017	1,944	95,962
December 31, 2019	8,523	1,591	57,872	2,882	66	7,241	1,554	79,729

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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22. OTHER INTANGIBLE ASSETS (Continued)

In connection with providing telecommunication services, the Group various GSM operating licenses were granted to the Group by the Russian Ministry of Information Technologies and Communications. In addition to the licenses received directly from the Russian Ministry of Information Technologies and Communications, the Group acquired access to various telecommunication licenses through business combinations. In foreign subsidiaries, the licenses are granted by the local communication authorities.

Operating licenses contain several conditions specified by legislation which generally include the required date of services provision, territorial coverage and expiration date. Management believes that the Group is in compliance with all material terms of its licenses.

The Group's operating licenses do not provide for automatic renewal. All licenses covering the territories of the Russian Federation expired as of December 31, 2019 were renewed. The cost to renew the licenses was not significant. Weighted-average period until the next renewal of licenses in the Russian Federation is two and half years.

The license for the provision of telecommunication services in Armenia is valid until 2034.

Contractual obligations to purchase intangible assets are disclosed in the Note 33.

23. BORROWINGS

Group's borrowings represent interest bearing bank loans and bonds issued in the capital markets. Borrowings are initially recorded at fair value plus transaction costs that are directly attributable to the issue of the financial liability and subsequently measured at amortized cost, using the effective interest rate method.

The Group's borrowings comprise the following:

	December 31,	
	2019	2018
Notes	183,935	117,355
Bank and other loans	159,384	250,780
Total borrowings	343,319	368,135
Less: current portion	(71,746)	(3,063)
Total borrowings, non-current	271,573	365,072

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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23. BORROWINGS (Continued)

Notes—The Group’s notes consisted of the following:

	Currency	Interest rate (actual at December 31, 2019)	December 31, 2019	December 31, 2018
MTS International Notes due 2023	USD	5.00%	27,712	31,090
MTS International Notes due 2020	USD	8.625%	18,616	20,870
MTS PJSC Notes due 2025	RUB	8.00%	14,984	—
MTS PJSC Notes due 2022	RUB	7.70%	14,969	14,958
MTS PJSC Notes due 2023	RUB	6.85%	14,961	—
MTS PJSC Notes due 2026	RUB	7.90%	9,998	—
MTS PJSC Notes due 2022	RUB	9.00%	9,995	9,993
MTS PJSC Notes due 2021	RUB	8.85%	9,995	9,990
MTS PJSC Notes due 2021	RUB	7.10%	9,992	9,988
MTS PJSC Notes due 2025	RUB	7.25%	9,988	9,986
MTS PJSC Notes due 2024	RUB	8.70%	9,982	—
MTS PJSC Notes due 2022	RUB	6.45%	9,973	—
MTS PJSC Notes due 2023	RUB	6.85%	9,351	9,348
MTS PJSC Notes due 2024	RUB	8.60%	7,485	—
MTS PJSC Notes due 2022	RUB	8.40%	4,991	—
MTS PJSC Notes due 2031	RUB	7.50%	891	1,080
MTS PJSC Notes due 2020	RUB	7.90%	40	40
Other			12	12
Total notes			<u>183,935</u>	<u>117,355</u>
Less: current portion			(27,937)	(1,017)
Total notes, non-current			<u>155,998</u>	<u>116,338</u>

The Group has an unconditional obligation to repurchase certain MTS PJSC Notes at par value if claimed by the noteholders subsequent to the announcement of the sequential coupon. The dates of the announcement for each particular note issue are as follows:

MTS PJSC Notes due 2031	March 2021
MTS PJSC Notes due 2023	March 2020

The Group discloses these notes as maturing in 2020 (MTS PJSC Notes due 2023) and in 2021 (MTS PJSC Notes due 2031) in the aggregated maturities schedule as the noteholders have the unilateral right to demand repurchase of the notes at par value upon announcement of new coupons.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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23. BORROWINGS (Continued)

Bank and other loans—The Group’s loans from banks and financial institutions consisted of the following:

	Maturity	Interest rate (actual at December 31, 2019)	December 31, 2019	December 31, 2018
<i>RUB-denominated:</i>				
Sberbank	2020 - 2024	7.50% - 7.91%	103,832	139,515
VTB	2021 - 2024	6.75% - 7.20%	43,893	100,000
Other			11,659	210
			<u>159,384</u>	<u>239,725</u>
<i>USD-denominated:</i>				
Citibank			—	10,980
			—	<u>10,980</u>
<i>Other currencies:</i>				
Other			—	75
			—	75
Total bank and other loans			<u>159,384</u>	<u>250,780</u>
Less: current portion			(43,809)	(2,046)
Total bank and other loans, non-current . . .			<u>115,575</u>	<u>248,734</u>

Compliance with covenants—Bank loans and notes of the Group are subject to certain covenants limiting the Group’s ability to incur debt, carry out transactions with related parties, create liens on properties, dispose of assets, including GSM and 3G licenses for several license areas, issue guarantees, grant loans to employees and entities, delist notes, delay coupon payments, merge or consolidate MTS PJSC with another entity or be a subject to a court decision to pay over USD 75 million (RUB 4,643 million as of the reporting date, which remains unsatisfied for more than 60 days) or be a subject to a court decision to pay over USD 250 million (RUB 15,476 million as of the reporting date, which remains unsatisfied for more than 180 days) without being appealed, discharged or waived (excluding the total criminal penalty under the agreements with the DOJ).

The Group is required to comply with certain financial ratios and maintain ownership stakes in certain subsidiaries.

The noteholders of MTS International Notes due 2020 and MTS International Notes due 2023 have the right to require the Group to redeem the notes at 101% of their principal amount and related interest, if the Group experiences a change in control.

If the Group fails to meet these covenants, after certain notice and cure periods, the debtholders are entitled to demand accelerated principal repayment.

The Group was in compliance with all existing notes and bank loans covenants as of December 31, 2019.

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23. BORROWINGS (Continued)

Available credit facilities—As of December 31, 2019, the Group’s total available unused credit facilities amounted to RUB 363,000 million and related to the following credit lines:

	Currency	Maturity	Interest rate	Available till	Available amount
Sberbank	RUB	2024	To be agreed	May 2024	115,000
Sberbank	RUB	2025	To be agreed	August 2025	60,000
Sberbank	RUB	2024	7.90%	June 2020	50,000
Sberbank	RUB	2024	To be agreed	August 2024	20,000
VTB	RUB	2025	CBR ¹ key rate +0.5%	March 2020	30,000
VTB	RUB	2028	To be agreed	August 2028	80,000
Rosselhozbank	RUB/USD/EUR	2020	To be agreed	November 2020	5,000
SPB Bank . . .	RUB	2020	To be agreed	March 2020	3,000
Total					<u>363,000</u>

(1) CBR—Central Bank of Russia

In addition, the Group has a credit facility made available by Citibank at an interest rate of MosPrime + 1.50%, with the available amount set up on request and to be repaid within 182 days.

The following table presents the aggregated scheduled maturities of principal and interests on notes and bank loans (gross of debt issuance costs) outstanding for the five years ending December 31, 2024 and thereafter:

	December 31, 2019	
	Notes	Bank loans and other debt
Payments due in the year ending December 31,		
2020	39,847	56,975
2021	32,430	33,156
2022	50,344	11,232
2023	49,797	7,256
2024	21,069	100,019
Thereafter	37,339	—
Contractual undiscounted cash flows	<u>230,826</u>	<u>208,638</u>
Less: unamortized debt issuance costs	(243)	—
Less: interest	(46,648)	(46,979)
Less: debt modification	—	(2,275)
Total debt	<u>183,935</u>	<u>159,384</u>

24. RIGHTS-OF-USE ASSETS AND LEASE OBLIGATIONS

The Group’s lease contracts largely relate to leases of cellular sites (i.e. land, space in cell towers or rooftop surface areas), network infrastructure, and retail stores as well as buildings used for administrative or technical purposes.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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24. RIGHTS-OF-USE ASSETS AND LEASE OBLIGATIONS (Continued)

The Group recognizes a right-of-use asset and a corresponding lease liability with respect to all lease agreements (including sub-lease and lease of intangible assets), which conveys the right to control the use of identified assets for a period of time in exchange for consideration, except for short-term leases (with a lease term of 12 months or less). For these leases, the Group recognizes the lease payments as operating expenses over the term of the lease. When identifying the lease, the Group uses practical expedient of IFRS 16 permitting the lessee not to separate the non-lease components of the contract and, instead, to account for any lease and associated non-lease components as a single arrangements.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the incremental borrowing rate of the Group. The incremental borrowing rate of the Group is determined based on the credit spreads of the Group debt instruments in relation to the zero-coupon yield curve for government securities. The lease payments include fixed payments, variable payments that depend on index or rate, amounts expected to be paid under residual value guarantee, the exercise price under a purchase option the Group is reasonably certain to exercise as well as early termination fees unless the Group is reasonably certain not to terminate earlier. Variable payments that depend on external factors (such as sale volume of a particular retail store) are expensed as incurred.

Lease liability is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option. A corresponding adjustment is made to the carrying amount of the right-of-use assets, or is recorded in profit or loss if the carrying amount of right-of-use asset had been reduced to zero.

Right-of-use assets are initially measured at cost, which is the initial amount of lease liability adjusted for any lease payments made at or before the commencement date, plus any direct costs incurred and an estimate of costs to dismantle, remove or restore the underlying asset less any lease incentives received.

Right-of-use assets are subsequently amortized on a straight-line basis over the expected lease term. The lease term corresponds to the non-cancellable period of each contract except in cases where the Group is reasonably certain of exercising renewal or termination options. When assessing the lease term, the Group considers all facts and circumstances that create an economic incentive for the Group to exercise the option to extend the lease, such as useful life of the asset located on the leased site, sites replacement statistics, sequence of technology change, profitability of our retail stores as well as costs to terminate or enter into lease contracts.

The table below summarises the estimated terms, over which the right-of-use assets are amortized:

Sites for placement of network equipment and base stations inside the buildings	10 years
Sites for placement of network equipment and base stations on land	20 years
Retail stores	Up to 8 years
Administrative offices, warehouses, parking garages	not less than 3 years
Vehicles	4 - 5 years

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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24. RIGHTS-OF-USE ASSETS AND LEASE OBLIGATIONS (Continued)

The following table presents a summary of net book value of rights-of-use assets:

	December 31,	
	2019	2018
Sites for placement of network and base station equipment	93,694	92,500
Land and buildings	45,020	53,792
Vehicles and other	103	1,210
Exclusive rights for trademarks	—	1,505
Rights-of-use assets, net	<u>138,817</u>	<u>149,007</u>

Depreciation of the rights-of-use assets for the years ended December 31, 2019 and 2018 included in depreciation and amortization expense in the accompanying consolidated statement of profit or loss was as follows, whereas RUB 1,644 and RUB 1,388 million, respectively were recognized as part of loss from discontinued operation in the accompanying consolidated statements of profit or loss:

	2019	2018
Sites for network and base station equipment	6,900	7,784
Land and buildings	11,968	10,955
Vehicles and other	404	135
Exclusive rights for trademarks	693	694
Depreciation charge, total	<u>19,965</u>	<u>19,568</u>

Additions to the assets leased during the years ended December 31, 2019 and 2018 amounted to RUB 20,436 and RUB 22,572 million.

Interest expense accrued on lease obligations for the years ended December 31, 2019 and 2018 in the amount of RUB 13,416 and RUB 12,852 million, respectively, were included in finance costs, whereas RUB 1,246 and RUB 1,066 million, respectively were recognized as part of loss from discontinued operation in the accompanying consolidated statements of profit or loss.

For the years ended December 31, 2019 and 2018, expenses recognized in respect of variable lease payments not included on the measurement of lease liabilities and short-term leases amounted to:

	2019	2018
Variable lease payments	691	209
Short-term leases	203	173
Total	<u>894</u>	<u>382</u>

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24. RIGHTS-OF-USE ASSETS AND LEASE OBLIGATIONS (Continued)

The following table presents future minimum lease payments under lease arrangements together with the present value of the net minimum lease payments as at December 31, 2019 and 2018:

	December 31,	
	2019	2018
Minimum lease payments, including:		
Current portion (less than 1 year)	27,650	30,220
More than 1 to 5 years	100,005	107,403
Over 5 years	106,411	116,420
Total minimum lease payments	234,066	254,043
Less amount representing interest	(78,758)	(93,491)
Present value of net minimum lease payments, including:		
Current portion (less than 1 year)	15,228	15,812
More than 1 to 5 years	63,016	62,468
Over 5 years	77,064	82,272
Total present value of net minimum lease payments	155,308	160,552
Less current portion of lease obligations	(15,228)	(15,812)
Non-current portion of lease obligations	140,080	144,740

Total cash outflows for leases for the year ended December 31, 2019 and 2018 totaled to RUB 30,714 and RUB 27,643 million, of which RUB 14,666 and RUB 13,684 million was included in interest paid.

A minor part of the Group's lease contracts for retail stores include variable payments that depend on sales volume of the respective store.

The Group's lease contracts include typical restrictions and covenants common for local business practice, such as the responsibility of the Group for regular maintenance and repair of the lease assets and their insurance, redesign and conduction of permanent improvements only with the consent of the lessor, and use of the leased asset in accordance with current legislation.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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25. RECONCILIATION OF LIABILITIES ARISING FROM FINANCIAL ACTIVITIES

	December 31, 2018	Financing cash flows	Operating cash flows	Acquisitions/ Disposals	Foreign exchange movement	Other comprehensive income	Change in fair value	Change in retained earnings	Other changes ¹	December 31, 2019
Notes (Note 23)	117,355	72,200	—	—	(5,668)	—	—	—	48	183,935
Bank and other loans (Note 23)	250,780	(93,640)	—	18	(1,057)	—	—	—	3,283	159,384
Lease obligation (Note 24)	160,552	(15,154)	(14,666)	(8,895)	(1,150)	493	—	—	34,128	155,308
Payables related to repurchase of common stock (Note 31)	—	(15,922)	—	—	—	—	—	—	15,922	—
Dividends payable (Note 31)	146	(52,505)	—	—	—	—	—	74,302	1,137	23,080
Payable related to purchase of noncontrolling interests	—	—	—	—	—	—	—	—	—	—
Payables related to transactions under common control	120	(15,312)	—	—	—	—	—	—	15,214	22
Liability under put option agreement (Note 32)	3,735	—	—	—	—	—	1,805	—	(5,467)	73
Receivables related to sale of own shares	—	—	—	—	—	—	—	—	—	—
Hedge asset (net)	(2,796)	(115)	(726)	—	3,299	296	—	—	997	955
Total liabilities arising from financial activities	<u>529,892</u>	<u>(120,448)</u>	<u>(15,392)</u>	<u>(8,877)</u>	<u>(4,576)</u>	<u>789</u>	<u>1,805</u>	<u>74,302</u>	<u>65,262</u>	<u>522,757</u>

(1) Including accrual of liabilities related to repurchase of common stock, additions under lease agreements, dividends related to non-controlling interest, depreciation of debt issuance cost, modification gain, offsetting the liability under put option with the loan issued to the minority shareholders of MTS Armenia and other changes.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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25. RECONCILIATION OF LIABILITIES ARISING FROM FINANCIAL ACTIVITIES (Continued)

	December 31, 2017	Financing cash flows	Operating cash flows	Acquisitions	Foreign exchange movement	Other comprehensive income	Change in fair value	Effect of new standards on opening balance	Change in retained earnings	Other changes ¹	December 31, 2018
Notes (Note 23) . . .	108,776	(472)	—	—	8,967	—	—	—	—	84	117,355
Bank and other loans (Note 23) . . .	182,937	70,657	—	167	2,250	22	—	(2,983)	—	(2,270)	250,780
Lease obligation (Note 24)	11,857	(13,577)	(13,684)	690	(1,456)	1,821	—	140,736	—	34,166	160,553
Credit guarantee agreement related to foreign- currency hedge (Note 29)	996	(981)	—	—	(15)	—	—	—	—	—	—
Payables related to repurchase of common stock (Note 31)	—	(22,655)	—	—	—	—	—	—	—	22,655	—
Dividends payable (Note 31)	125	(50,054)	—	—	—	—	—	—	48,921	1,154	146
Payable related to purchase of noncontrolling interests	—	(101)	—	—	—	—	—	—	—	101	—
Payables related to transactions under common control	—	(13,242)	—	13,362	—	—	—	—	—	—	120
Liability under put option agreement (Note 32)	2,424	—	—	—	—	592	719	—	—	—	3,735
Receivables related to sale of own shares	—	89	—	—	—	—	—	—	—	(89)	—
Hedge asset (net) . . .	(8,129)	4,412	(752)	—	(2,837)	129	—	—	—	4,380	(2,797)
Total liabilities arising from financial activities	<u>298,986</u>	<u>(25,924)</u>	<u>(14,436)</u>	<u>14,219</u>	<u>6,909</u>	<u>2,564</u>	<u>719</u>	<u>137,753</u>	<u>48,921</u>	<u>60,181</u>	<u>529,892</u>

(1) Including accrual of liabilities related to dividends declared, repurchase of common stock, additions under lease agreements, depreciation of debt issuance cost, modification gain and other changes.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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26. PROVISIONS

Provisions—Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of past event, and it is probable that the Group will be required to settle that obligation and a reliable estimate can be made of the amount of the obligation. Provisions are measured at the managements' best estimate of the expenditure required to settle the obligation at the reporting date and are discounted to present value where the effect is material. The main provisions the Group holds are in relation to employees' bonuses and other rewards (including retirement benefits and cash-settled share based payments), decommissioning and restoration obligation, tax provisions as well as legal claims.

Provision for decommissioning and restoration—The Group calculates a provision for decommissioning and restoration when the Group has a legal or constructive obligation in connection with the retirement of tangible long-lived assets. The Group's obligations relate primarily to the cost of removing its equipment from sites. The Group records the present value of provision for decommissioning and restoration as non-current provisions in the consolidated statement of financial position.

Share-based settlement programs—For cash-settled share-based payment transactions, the fair value of the obligation is newly determined at each reporting date and at the settlement date, and the changes in the fair value are recognized in profit or loss, until the liability is settled.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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26. PROVISIONS (Continued)

The following table summarizes the movement in provisions for the years ended December 31, 2019, 2018 and 2017:

	Tax provisions other than for income tax	Provision for decommis- sioning and restoration	Employee bonuses and other rewards	SEC provision (Note 33)	Other provisions	Total provisions
At 1 January 2017	(457)	(1,191)	(8,552)	—	(225)	(10,425)
Arising during the year	(229)	(108)	(15,181)	—	(534)	(16,052)
Utilised	342	5	12,203	—	92	12,642
Discount rate adjustment and imputed interest (change in estimates)	—	(103)	41	—	—	(62)
Unused amounts reversed	33	338	1,233	—	101	1,705
Other	1	10	99	—	(79)	31
At 31 December 2017	(310)	(1,049)	(10,157)	—	(645)	(12,161)
Current 2017	(310)	—	(8,897)	—	(645)	(9,852)
Non-current 2017	—	(1,049)	(1,260)	—	—	(2,309)
At 1 January 2018	(310)	(1,049)	(10,157)	—	(645)	(12,161)
Arising during the year	(374)	(1,912)	(14,259)	(55,752)	(941)	(73,238)
Utilised	336	18	13,873	—	393	14,620
Discount rate adjustment and imputed interest (change in estimates)	—	(223)	177	—	—	(46)
Unused amounts reversed	211	89	1,079	—	872	2,251
Arising due to acquisitions of subsidiaries	(113)	—	(984)	—	(1,165)	(2,262)
Other	(2)	(32)	(107)	(3,298)	(27)	(3,466)
At 31 December 2018	(252)	(3,109)	(10,378)	(59,050)	(1,513)	(74,302)
Current portion	(252)	—	(10,096)	(59,050)	(1,513)	(70,911)
Non-current portion	—	(3,109)	(282)	—	—	(3,391)
At 1 January 2019	(252)	(3,109)	(10,378)	(59,050)	(1,513)	(74,302)
Arising during the year	(410)	(2,341)	(16,896)	—	(208)	(19,855)
Utilised	19	19	16,055	55,607	527	72,227
Discount rate adjustment and imputed interest (change in estimates)	—	42	(12)	—	—	30
Unused amounts reversed	34	—	523	—	155	712
Arising due to acquisitions of subsidiaries	—	—	(9)	—	—	(9)
Disposal of VF Ukraine (Note 10)	50	760	672	—	126	1,608
Other	(4)	(159)	2	3,443	20	3,302
At 31 December 2019	(563)	(4,788)	(10,043)	—	(893)	(16,287)
Current portion	(563)	(126)	(9,944)	—	(893)	(11,526)
Non-current portion	—	(4,662)	(99)	—	—	(4,761)

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27. FAIR VALUE OF FINANCIAL INSTRUMENTS

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Financial assets include, in particular, cash and cash equivalents, trade and other receivables, bank loans to customers, investments (mainly deposits with original maturity of more than three months, originated loans other than bank loans to customers as well as debt securities) and derivative financial assets. Financial liabilities generally substantiate claims for repayment in cash or another financial asset. In particular, this includes bonds, trade and other payables, bank loans, lease obligations and derivative financial liabilities. Financial instruments are recognized as soon as the Group becomes a party to the contractual provision of the instrument.

Financial assets and financial liabilities are recognized initially at fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability, except for a financial asset or liability accounted for at fair value through profit or loss, in which case transaction costs are expensed. Subsequently they are measured either at amortized cost or fair value depending on the classification of those assets and liabilities.

Financial assets can be classified as 1) financial assets at amortized cost; 2) financial assets at fair value through other comprehensive income; 3) financial assets at fair value through profit or loss. If the financial assets are held for collecting contractual cash flows in the form of principal and interest on the specified dates, it is classified as carried at amortized cost. If the financial assets are held not only for collecting contractual cash flows in the form of principal and interest on the specified dates, but also for potential sale, they are classified as measured at fair value through other comprehensive income. All other financial assets are classified as measured at fair value through profit or loss.

Financial liabilities can be classified as measured at fair value or at amortized costs. The Group measures its derivative instruments, contingent consideration recognized in business combination as well as liability under put option agreement at fair value. All other financial liabilities of the Group are measured at amortized cost.

Hedging activities—The Group uses derivative instruments, including interest rate and foreign currency swaps, to manage foreign currency and interest rate risk exposures. The Group measures derivatives at fair value and recognizes them as either other current or other non-current financial assets or liabilities in the consolidated statement of financial position. Cash flows from derivatives are classified according to their nature. The Group reviews related fair value hierarchy classifications on a quarterly basis. The fair value measurement of the Group's derivative instruments is based on the observable yield curves for similar instruments. The Group determines the existence of an economic relationship between the hedging instruments and hedged item based on the currency, amount and timing of their respective cash flows. The Group assesses whether the derivative designated in each hedging relationship is expected to be and has been effective in offsetting changes in cash flows of the hedged item using the qualitative method. The hedge ratio applied by the Group is the same as that resulting from the quantity of the hedged item and the quantity of the hedging instrument actually used to hedge that quantity of the hedged item.

The Group designates derivatives as either fair value hedges or cash flow hedges in case the required criteria are met.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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27. FAIR VALUE OF FINANCIAL INSTRUMENTS (Continued)

Fair value hedges—Changes in the fair value of derivatives that are designated and qualified as fair value hedges are recognized in profit or loss immediately together with any changes in the fair value of the hedged asset or liability that are attributed to the hedged risk.

Cash flow hedges—The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges are recognized in other comprehensive income.

The gain or loss relating to the ineffective portion is recognized immediately in profit or loss. Gains or losses accumulated in other comprehensive income are immediately reclassified into the consolidated statement of profit or loss when related hedged transactions affects earnings.

For derivatives that do not meet the conditions for hedge accounting, gains and losses from changes in the fair value are recorded immediately in profit or loss.

Assets and liabilities related to multiple derivative contracts with one counterparty are not offset by the Group.

Liability under put option agreement—To optimize the structure of business acquisitions and to defer payment of the purchase price, the Group enters into put and call option agreements to acquire the remaining non-controlling stakes in newly acquired subsidiaries. Upon initial recognition, the commitment to purchase non-controlling interests is recognized as a financial liability for the present value of the redemption amount, which approximates its fair value. Subsequent changes in the value of the commitment are recognized in profit or loss for the reporting period.

Netting—The Group offsets its financial assets and financial liabilities only if it has a legally enforceable right to set off the recognized amounts and intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

Fair value of financial instruments—Fair value of financial assets and liabilities is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The three-tier hierarchy for inputs used in measuring fair value, which prioritizes the inputs used in the methodologies of measuring fair value for assets and liabilities, is as follows:

- Level 1—Quoted prices in active markets for identical assets or liabilities;
- Level 2—Observable inputs other than quoted prices in active markets for identical assets and liabilities;
- Level 3—No observable pricing inputs in the market.

Financial assets and financial liabilities are classified in the three-tier hierarchy based on the lowest level of input that is significant to the fair value measurements. The Group's assessment of the significance of a particular input to the fair value measurements requires judgment which may affect the valuation of the assets and liabilities being measured and their placement within the fair value hierarchy.

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27. FAIR VALUE OF FINANCIAL INSTRUMENTS (Continued)

As of December 31, 2019 and 2018 financial assets and financial liabilities of the Group comprise of:

1. Financial assets

	December 31, 2019	December 31, 2018
Trade and other receivables (Note 17)	39,151	37,143
Accounts receivable, related parties (Note 30)	16,659	8,930
Cash and cash equivalents (Note 13)	38,070	84,075
Other financial assets:		
Financial assets at fair value through profit or loss:		
Securities held by MTS Bank	13,273	22,487
Mutual funds	9,349	—
Assets in Sistema Capital trust management	8,195	11,644
Contingent consideration	2,013	—
Currency forwards, swaps and options not designated as hedges	52	2,200
Cross-currency swaps not designated as hedges	318	1,077
Total financial assets at fair value through profit or loss	33,200	37,408
Financial assets at fair value through OCI:		
Cross-currency swaps designated as cash flow hedges	—	2,797
Notes	—	70
Total financial assets at fair value through OCI	—	2,867
Financial assets at amortized cost:		
Deposits and loans issued	94,757	83,865
Notes	15,957	31,165
Other	3,520	2,579
Total financial assets at amortized cost	114,234	117,609
Total other financial assets	147,434	157,884
Total financial assets	241,314	288,032
Less current portion	(159,084)	(230,642)
Total financial assets, non-current	82,230	57,390

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27. FAIR VALUE OF FINANCIAL INSTRUMENTS (Continued)

2. Financial liabilities

	December 31, 2019	December 31, 2018
Trade and other payables	71,808	53,623
Accounts payable, related parties (Note 30)	558	1,301
Financial liabilities at amortized cost:		
Loans and borrowings:		
Bank and other loans (Note 23)	159,384	250,780
Lease obligations (Note 24)	155,308	160,552
Notes (Note 23)	183,935	117,355
MTS Bank deposits and liabilities (Note 28)	137,952	111,454
<i>Total loans and borrowings</i>	636,579	640,141
<i>Total financial liabilities at amortized cost</i>	636,579	640,141
Other financial liabilities at fair value:		
Financial liabilities at fair value through profit or loss:		
Contingent consideration and other liabilities	917	936
Currency forwards and swaps not designated as hedges	366	85
Liabilities under option agreements (Note 32)	73	3,735
Interest rate swaps not designated as hedges	68	265
<i>Total financial liabilities at fair value through profit or loss</i>	1,424	5,021
Financial liabilities at fair value through OCI:		
Cross-currency swaps designated as cash flow hedges	955	—
<i>Total financial liabilities at fair value through OCI</i>	955	—
Total other financial liabilities at fair value	2,379	5,021
Total financial liabilities	711,324	700,086
Less current portion	(296,911)	(187,160)
Total financial liabilities, non-current	414,413	512,926

The fair value measurement of the Group's derivative instruments and investments in Sistema Capital trust management is based on the observable yield curves for similar instruments and represents the estimated amount the Group would receive or pay to terminate these agreements at the reporting date, taking into account current interest rates, foreign exchange spot and forward rates. The investment in mutual investment funds is measured at fair value of the Group's share in net assets of funds.

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27. FAIR VALUE OF FINANCIAL INSTRUMENTS (Continued)

The table below presents the fair value of financial instruments carried at fair value within the statement of financial position:

	<u>Level of inputs</u>	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Assets			
Securities held by MTS Bank	Level 1	13,273	22,487
Sistema International Funding S.A. Bonds due in 2019 (related party) (Note 14, 30)	Level 1	—	70
Derivative instruments	Level 2	370	6,074
<i>Currency forwards, swaps and options</i>		52	2,200
<i>Cross-currency interest rate swaps</i>		318	3,874
Mutual investment funds, managed by Sistema Capital (related party) (Note 14, 30)	Level 2	9,349	—
Assets in Sistema Capital trust management (related party) (Note 14, 30)	Level 2	8,195	11,644
Contingent consideration	Level 3	2,013	—
Liabilities			
Derivative instruments	Level 2	(1,389)	(350)
<i>Interest rate swaps</i>		(68)	(265)
<i>Cross-currency interest rate swaps</i>		(955)	—
<i>Currency forwards and swaps</i>		(366)	(85)
Contingent consideration	Level 3	(907)	(940)
Liabilities under option agreements	Level 3	(73)	(3,735)

For the years ended December 31, 2019, 2018 and 2017, net realized gains and losses of Level 3 liabilities resulting from fair value measurements amounted to RUB 1,813 million loss, RUB 719 million loss and a RUB 120 million gain, respectively and were recognized as a part of change in fair value of financial instruments in the consolidated statement of profit or loss. No unrealized gains or losses of Level 3 liabilities resulting from fair value measurements were recognized during the years ended December 31, 2019, 2018 and 2017.

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27. FAIR VALUE OF FINANCIAL INSTRUMENTS (Continued)

Liability under put option

The liability under put option agreement for redeemable non-controlling interests in MTS Armenia in the amount of RUB 3,629 million as of December 31, 2018 was measured at fair value using a discounted cash flow technique. In 2019 the liability was settled through the acquisition of the 20% ownership interest in MTS Armenia (Note 32). The most significant quantitative inputs used to measure its fair value are presented in the table below:

<u>Unobservable inputs</u>	<u>December 31, 2018</u>
Post-tax discount rate	13%
Revenue growth rate	0.3 - 2.0% (av. 0.9%)
OIBDA margin	40.5 - 43.2% (av. 41.5%)

Other liability under option agreement relates to redeemable non-controlling interests in Kulturnaya Sluzhba and is insignificant.

Financial instruments at amortised cost

The carrying value of the Group's financial instruments accounted for at amortized cost approximates their fair value due to their short-term nature and market interest rates, except for borrowings, gross of debt issuance cost, as disclosed in the table below:

	<u>Level of inputs</u>	<u>December 31, 2019</u>		<u>December 31, 2018</u>	
		<u>Fair value</u>	<u>Carrying value</u>	<u>Fair value</u>	<u>Carrying value</u>
Notes	Level 1	(180,824)	(174,165)	(115,698)	(117,534)
Unquoted notes	Level 3	(10,012)	(10,012)	—	—
Bank and other loans (Note 23)	Level 3	(159,384)	(159,384)	(251,189)	(251,188)
		<u>(350,220)</u>	<u>(343,561)</u>	<u>(366,887)</u>	<u>(368,722)</u>

The carrying value of the Group's bank and other loans approximates their fair value as of December 31, 2019 and 2018.

While management has used available market information in estimating the fair value of its financial instruments, the market information may not be fully reflective of the value that could be realized in the current circumstances.

There were no transfers between levels of inputs within the hierarchy during the years ended December 31, 2019, 2018 and 2017.

During the year ended December 31, 2019 several of the Group's swap agreements in the amount of RUB 678 million were transferred from accounting category "financial assets at fair value through other comprehensive income" to category "financial assets at fair value through profit or loss" as a result of termination of hedging relationships due to the early redemption of hedged loans.

There were no transfers between the accounting categories of financial instruments during the years ended December 31, 2018 and 2017.

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28. BANK FINANCIAL ASSETS AND LIABILITIES

Bank deposits and loans to customers

The table below represents the structure and amounts of current and non-current bank deposits and loans to customers as of December 31, 2019 and 2018.

	December 31,	
	2019	2018
Loans to customers	99,990	68,132
Due from banks	2,883	2,635
Allowance for ECL	(10,031)	(7,729)
Total bank deposits and loans to customers, net	92,842	63,038
Less: current portion	(39,370)	(32,385)
Bank deposits and loans to customers, non-current	53,472	30,653

The structure and amounts of bank loans to customers as of December 31, 2019 and 2018 is presented in the table below:

	December 31,	
	2019	2018
Loans to legal entities		
Corporate borrowers	24,192	27,414
Medium-sized enterprises and small businesses	1,959	1,941
Total loans to legal entities	26,151	29,355
Loans to individuals		
Mortgage loans	11,164	11,668
Consumer loans	46,484	17,307
Credit cards	15,618	9,778
Other	573	24
Total loans to individuals	73,839	38,777
Due from banks		
Time deposits with banks	1,581	1,659
Obligatory reserves with the Central Bank of Russia	1,302	976
Total due from banks	2,883	2,635
Total bank deposits and loans to customers	102,873	70,767
Less: allowance for impairment losses	(10,031)	(7,729)
Total bank deposits and loans to customers, net	92,842	63,038

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

The table below summarizes carrying value of loans to customers aggregated by types of collateral obtained by the Group:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Guaranties	11,448	17,984
Pledge of real estate	14,077	14,237
Securities	1,017	32
Pledge of equipment	495	143
Rights of claim, pledge of inventories or own promissory notes and by other collateral	44	353
Unsecured loans	72,909	35,383
Allowance for impairment losses	(10,024)	(7,689)
Total loans to customers, net	<u>89,966</u>	<u>60,443</u>

The balances above do not necessarily reflect the fair value of collateral received.

Movements in the allowance for impairment losses attributable to bank deposits and loans to customers for the year ended December 31, 2019 are presented in the table below:

	<u>Loans to customers</u>	<u>Due from banks</u>	<u>Total</u>
Balance as at January 1, 2019	7,689	40	7,729
Provision charge/release	3,551	(18)	3,533
Recovery of bad debt written-off	827	1	828
Bad debt written-off	(2,006)	(16)	(2,022)
Sale of loans	(40)	—	(40)
Foreign currency revaluation effect	3	—	3
Balance as at December 31, 2019	<u>10,024</u>	<u>7</u>	<u>10,031</u>

	<u>Loans to customers</u>	<u>Due from banks</u>	<u>Total</u>
Balance as at the date of acquisition	8,444	42	8,486
Provision charge/release	636	(2)	634
Recovery of bad debt written-off	430	—	430
Bad debt written-off	(1,817)	—	(1,817)
Foreign currency revaluation effect	(4)	—	(4)
Balance as at December 31, 2018	<u>7,689</u>	<u>40</u>	<u>7,729</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

Movements in provision for impairment losses on loans to legal entities for the year ended December 31, 2019 and 2018 were as follows:

	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>POCI*</u>	<u>Total</u>
Balance as at January 1, 2019	318	486	3,153	255	4,212
—Transfer to stage 1	19	(18)	(1)	—	—
—Transfer to stage 2	(46)	47	(1)	—	—
—Transfer to stage 3	(55)	(496)	551	—	—
New financial assets originated or purchased	524	2	—	132	658
Change due to change of credit risk	(42)	56	(391)	(28)	(405)
Sale of loans	(40)	—	—	—	(40)
Write-offs	—	—	(798)	(65)	(863)
Recovery of previously written-off assets	—	—	392	—	392
Foreign exchange difference	3	—	—	—	3
Balance as at December 31, 2019	<u>681</u>	<u>77</u>	<u>2,905</u>	<u>294</u>	<u>3,957</u>

* POCI—financial assets purchased or originated credit-impaired

	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>POCI*</u>	<u>Total</u>
Balance as at the date of acquisition	325	306	3,714	182	4,527
—Transfer to stage 1	—	—	—	—	—
—Transfer to stage 2	(2)	—	2	—	—
—Transfer to stage 3	—	(29)	29	—	—
New financial assets originated or purchased	54	65	—	9	128
Change due to change of credit risk	(55)	144	(79)	64	74
Write-offs	—	—	(637)	—	(637)
Recovery of previously written-off assets	—	—	124	—	124
Foreign exchange difference	(4)	—	—	—	(4)
Balance as at December 31, 2018	<u>318</u>	<u>486</u>	<u>3,153</u>	<u>255</u>	<u>4,212</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

Movements in provision for impairment losses attributable to loans to individuals for the year ended December 31, 2019 and 2018 were as follows:

	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>POCI</u>	<u>Total</u>
Balance as at January 1, 2019	756	318	2,005	398	3,477
—Transfer to stage 1	599	(465)	(134)	—	—
—Transfer to stage 2	(188)	236	(48)	—	—
—Transfer to stage 3	(2)	(1,228)	1,230	—	—
New financial assets originated or purchased	1,351	—	—	—	1,351
Change due to change of credit risk	(708)	2,062	593	—	1,947
Write-offs	—	—	(1,103)	(40)	(1,143)
Recovery of previously written-off assets	—	—	435	—	435
Balance as at December 31, 2019	<u>1,808</u>	<u>923</u>	<u>2,978</u>	<u>358</u>	<u>6,067</u>
	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>POCI</u>	<u>Total</u>
Balance as at the date of acquisition	683	388	2,468	378	3,917
—Transfer to stage 1	243	(162)	(81)	—	—
—Transfer to stage 2	(48)	66	(18)	—	—
—Transfer to stage 3	(2)	(291)	293	—	—
New financial assets originated or purchased	355	—	—	—	355
Change due to change of credit risk	(475)	317	217	20	79
Write-offs	—	—	(1,180)	—	(1,180)
Recovery of previously written-off assets	—	—	306	—	306
Balance as at December 31, 2018	<u>756</u>	<u>318</u>	<u>2,005</u>	<u>398</u>	<u>3,477</u>

The following valuation categories represent the Group's classification of credit quality of the loans:

- *Low to fair risk*—loans of high credit quality and low probability of default, not past due or immaterially overdue;
- *Monitoring*—loans with increased probability of default including restructured loans;
- *Impaired*—impaired loans including more than 90 days overdue.

The table below summarizes information regarding the quality of loans to individuals:

<u>As of December 31, 2019</u>	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>POCI</u>	<u>Total</u>
Low to fair risk	66,506	138	—	358	67,002
Monitoring	—	2,801	49	—	2,850
Impaired	—	—	3,987	—	3,987
Loss allowance	(1,808)	(923)	(2,978)	(358)	(6,067)
Total	<u>64,698</u>	<u>2,016</u>	<u>1,058</u>	<u>—</u>	<u>67,772</u>

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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

<u>As of December 31, 2018</u>	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>POCI</u>	<u>Total</u>
Low to fair risk	34,581	445	—	—	35,026
Monitoring	—	534	5	—	539
Impaired	—	—	2,814	398	3,212
Loss allowance	(756)	(318)	(2,005)	(398)	(3,477)
Total	<u>33,825</u>	<u>661</u>	<u>814</u>	<u>—</u>	<u>35,300</u>

The table below summarizes information regarding the quality of loans to legal entities:

<u>As of December 31, 2019</u>	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>POCI</u>	<u>Total</u>
Low to fair risk	11,711	1,728	—	—	13,439
Monitoring	7,396	1,489	—	—	8,885
Impaired	—	—	3,525	301	3,826
Loss allowance	(681)	(77)	(2,905)	(294)	(3,957)
Total	<u>18,426</u>	<u>3,140</u>	<u>620</u>	<u>7</u>	<u>22,193</u>

<u>As of December 31, 2018</u>	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>POCI</u>	<u>Total</u>
Low to fair risk	22,083	1,555	—	—	23,638
Monitoring	—	1,871	—	—	1,871
Impaired	—	—	3,586	260	3,846
Loss allowance	(327)	(477)	(3,153)	(255)	(4,212)
Total	<u>21,756</u>	<u>2,949</u>	<u>433</u>	<u>5</u>	<u>25,143</u>

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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

Analysis by credit quality of loans to individuals outstanding as of December 31, 2019 is as follows:

<u>As of December 31, 2019</u>	<u>Gross loans</u>	<u>Provision for impairment</u>	<u>Net loans</u>	<u>Provision for impairment to gross loans</u>
Collectively assessed				
Not past due	66,506	(1,664)	64,842	3%
Overdue:				
up to 30 days	1,841	(472)	1,369	26%
31 to 60 days	519	(293)	226	56%
61 to 90 days	441	(282)	159	64%
91 to 180 days	1,110	(816)	294	74%
over 180 days	<u>2,615</u>	<u>(2,043)</u>	<u>572</u>	<u>78%</u>
Total collectively assessed loans	<u>73,032</u>	<u>(5,570)</u>	<u>67,462</u>	<u>8%</u>
Individually impaired				
Not past due	495	(380)	115	77%
Overdue:				
up to 30 days	48	(15)	33	31%
31 to 60 days	—	—	—	0%
61 to 90 days	1	—	1	0%
91 to 180 days	4	—	4	0%
over 180 days	259	(102)	157	39%
Total individually impaired loans	<u>807</u>	<u>(497)</u>	<u>310</u>	<u>62%</u>
Total	<u>73,839</u>	<u>(6,067)</u>	<u>67,772</u>	<u>8%</u>

Analysis by credit quality of loans to medium-sized enterprises and small businesses outstanding as of December 31, 2019 is as follows:

<u>As of December 31, 2019</u>	<u>Gross loans</u>	<u>Provision for impairment</u>	<u>Net loans</u>	<u>Provision for impairment to gross loans</u>
Collectively assessed				
Not past due	1,213	(19)	1,194	2%
Overdue:				
up to 30 days	29	(9)	20	31%
31 to 60 days	30	—	30	0%
61 to 90 days	—	—	—	0%
91 to 180 days	14	(3)	11	21%
over 180 days	<u>672</u>	<u>(399)</u>	<u>273</u>	<u>59%</u>
Total collectively assessed loans	<u>1,958</u>	<u>(430)</u>	<u>1,528</u>	<u>22%</u>

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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

Bank deposits and liabilities

The table below represents the structure and amounts of current and non-current bank deposits and liabilities as of December 31, 2019 and 2018.

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Customer accounts	122,809	100,209
Due to banks and other financial institutions	12,305	7,750
Debt securities issued	1,421	1,717
Financial liabilities at fair value through profit or loss	297	767
Other financial liabilities	1,120	1,011
Total bank deposits and liabilities	<u>137,952</u>	<u>111,454</u>
Less: current portion	(136,147)	(108,821)
Total bank deposits and liabilities, non-current	<u>1,805</u>	<u>2,633</u>

The structure and amounts of customer accounts of December 31, 2019 and 2018 are presented below:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Legal entities		
—Current/settlement accounts	10,005	19,408
—Term deposits	12,092	8,188
Individuals		
—Current/settlement accounts	14,915	13,364
—Term deposits	85,797	59,249
Total customer accounts	<u>122,809</u>	<u>100,209</u>

The structure and amounts of due to banks as of December 31, 2019 and 2018 are presented below:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Loans under repurchase agreements	11,994	5,315
Loans and term deposits from banks and other financial institutions	50	1,268
Correspondent accounts of other banks	261	1,167
Total due to banks	<u>12,305</u>	<u>7,750</u>

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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

Loans under repurchase agreements were secured by the following collateral:

- Securities measured at fair value through profit/loss with the value of RUB 1,065 million as of December 31, 2019;
- Securities measured at amortized cost with the value of RUB 8,719 million and RUB 2,283 million as of December 31, 2019 and 2018 respectively;
- Federal Loan Bonds (OFZ) received from Deposit Insurance Agency (DIA) as a subordinated securities loan in the amount of RUB 3,518 million and RUB 3,539 million as of December 31, 2019 and 2018 respectively.

In November 2015, MTS Bank received a subordinated debt of RUB 7,246 million in the form of OFZ from the state corporation DIA with the date of maturity January 22, 2025. In accordance with the terms of the contract, MTS Bank should return the securities to the creditor at the end of the contract period. The Group does not recognize the securities and the obligation to return them to the creditor in the consolidated statement of financial position as of December 31, 2019 and 2018. In accordance with the contract, MTS Bank should comply with certain covenants with respect to capital, loan portfolio, employee benefits. If the above conditions are not met, DIA may apply penalties to MTS Bank. The contract also includes certain restrictions on sale or repledge of the securities by MTS Bank.

An analysis of liquidity and interest rate risk inherent to bank assets as of December 31, 2019 and 2018 is presented in the following table. The maturity corresponds to the contractual terms. However, individuals are entitled to terminate their deposit agreement ahead of schedule.

<u>As of December 31, 2019</u>	<u>Up to 1 month</u>	<u>1 month to 3 months</u>	<u>3 months to 1 year</u>	<u>1 year to 5 years</u>	<u>Over 5 years</u>	<u>Maturity undefined</u>	<u>Total</u>
Financial assets							
Financial assets at fair value through							
profit or loss	13,273	—	—	—	—	—	13,273
Due from banks	1,831	—	—	—	—	—	1,831
Loans to customers	4,366	12,334	33,371	49,138	6,187	1,783	107,179
Investments in securities	5	10	6,059	8,937	442	—	15,453
Total interest bearing financial assets	19,475	12,344	39,430	58,075	6,629	1,783	137,736
Cash and cash equivalents	26,244	—	—	—	—	—	26,244
Due from banks	466	128	697	9	—	—	1,300
Currency forwards and options not							
designated as hedges	—	26	—	—	—	—	26
Other financial assets*	683	57	57	—	—	21	818
Total non-interest bearing financial assets	27,393	211	754	9	—	21	28,388
Total financial assets	46,868	12,555	40,184	58,084	6,629	1,804	166,124

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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

	<u>Up to 1 month</u>	<u>1 month to 3 months</u>	<u>3 months to 1 year</u>	<u>1 year to 5 years</u>	<u>Over 5 years</u>	<u>Total</u>
Financial liabilities						
Due to banks and other financial institutions	(12,044)	—	—	—	—	(12,044)
Customer accounts*	(16,094)	(12,746)	(69,178)	(928)	—	(98,946)
Debt securities issued	(445)	(710)	(135)	(677)	(463)	(2,430)
Lease obligations*	(25)	(33)	(191)	(377)	—	(626)
Total interest bearing financial liabilities	(28,608)	(13,489)	(69,504)	(1,982)	(463)	(114,046)
Currency forwards and options not designated as hedges	—	(25)	—	—	—	(25)
Obligation to deliver securities	(272)	—	—	—	—	(272)
Due to banks and other financial institutions	(261)	—	—	—	—	(261)
Customer accounts*	(30,152)	—	—	—	—	(30,152)
Other financial liabilities	(1,987)	(550)	(1,534)	—	—	(4,071)
Total non-interest bearing financial liabilities	(32,672)	(575)	(1,534)	—	—	(34,781)
Total financial liabilities	(61,280)	(14,064)	(71,038)	(1,982)	(463)	(148,827)
Liquidity gap	(14,097)	(1,478)	(30,884)	56,102	6,166	
Stable sources of funding	40,625	641	30,855	(14,270)	(57,852)	
Net liquidity gap	26,529	(836)	(29)	41,832	(51,686)	
Cumulative liquidity gap	26,529	25,692	25,663	67,496	15,810	
Cumulative interest sensitivity gap	(8,875)	(10,020)	(40,094)	15,999	22,165	
* Including intercompany balances	6,802	593	(13,532)	(2,960)	—	(9,097)

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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

<u>As of December 31, 2018</u>	<u>Up to 1 month</u>	<u>1 month to 3 months</u>	<u>3 months to 1 year</u>	<u>1 year to 5 years</u>	<u>Over 5 years</u>	<u>Maturity undefined</u>	<u>Total</u>
Financial assets							
Financial assets at fair value through profit or loss	13,680	—	—	—	—	—	13,680
Due from banks	477	—	—	—	—	—	477
Loans to customers	5,182	9,113	25,525	25,922	1,104	6,344	73,190
Investments in securities	111	4,233	10,838	14,032	1,300	—	30,514
Total interest bearing financial assets . .	19,450	13,346	36,363	39,954	2,404	6,344	117,861
Cash and cash equivalents	10,117	—	—	—	—	—	10,117
Financial assets at fair value through profit or loss	—	—	—	—	—	8,806	8,806
Due from banks	483	61	1,928	13	—	—	2,485
Currency forwards and options not designated as hedges	—	45	183	—	—	—	228
Other financial assets*	522	335	25	—	—	4	886
Total non-interest bearing financial assets	11,122	441	2,136	13	—	8,810	22,522
Total financial assets	30,572	13,787	38,499	39,967	2,404	15,154	140,383

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

	Up to 1 month	1 month to 3 months	3 months to 1 year	1 year to 5 years	Over 5 years	Maturity undefined	Total
Financial liabilities							
Due to banks and other financial institutions	(1,268)	—	—	—	—	—	(1,268)
Customer accounts*	(13,012)	(7,239)	(45,971)	(1,599)	—	—	(67,821)
Debt securities issued	(12)	(314)	(333)	(771)	(287)	—	(1,717)
Lease obligations*	(21)	(37)	(144)	(200)	(6)	—	(408)
Total interest bearing financial liabilities	(14,313)	(7,590)	(46,448)	(2,570)	(293)	—	(71,214)
Currency forwards and options not designated as hedges	—	(45)	(328)	—	—	—	(373)
Obligation to deliver securities	(394)	—	—	—	—	—	(394)
Due to banks and other financial institutions	(6,482)	—	—	—	—	—	(6,482)
Customer accounts*	(48,854)	—	—	—	—	—	(48,854)
Other financial liabilities	(1,620)	(541)	(1,851)	—	—	—	(4,012)
Total non-interest bearing financial liabilities	(57,350)	(586)	(2,179)	—	—	—	(60,115)
Total financial liabilities	(71,663)	(8,176)	(48,627)	(2,570)	(293)	—	(131,329)
Liquidity gap	(41,091)	5,611	(10,128)	37,397	2,111	—	—
Stable sources of funding	40,689	(13,182)	22,667	(8,128)	(42,046)	—	—
Net liquidity gap	(402)	(7,571)	12,539	29,269	(39,935)	—	—
Cumulative liquidity gap	(402)	(7,973)	4,566	33,835	(6,100)	—	—
Cumulative interest sensitivity gap	5,138	10,894	809	38,193	40,304	—	—
* Including intercompany balances	(16,402)	(5)	(17)	(3)	—	—	(16,427)

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

Analysis of the liquidity and interest rate risks as of December 31, 2019 and 2018 is presented in the following table. The amounts in the table below represent future aggregate undiscounted cash flows.

<u>As of December 31, 2019</u>	<u>Weighted average interest rate</u>	<u>Up to 1 month</u>	<u>1 month to 3 months</u>	<u>3 months to 1 year</u>	<u>1 year to 5 years</u>	<u>Over 5 years</u>	<u>Maturity undefined</u>	<u>Total</u>
Interest bearing financial liabilities								
Due to banks	6.5%	12,062	—	—	—	—	—	12,062
Customer accounts*	5.9%	15,716	13,272	13,354	58,234	957	—	101,534
Debt securities issued	9.5%	457	716	93	43	677	463	2,449
Lease obligations*		26	40	195	444	—	—	705
Total interest bearing financial liabilities		<u>28,261</u>	<u>14,028</u>	<u>13,642</u>	<u>58,721</u>	<u>1,634</u>	<u>463</u>	<u>116,750</u>
Non-interest bearing financial liabilities								
Financial liabilities at fair value through profit or loss		—	25	—	—	—	—	25
Due to banks		263	—	—	—	—	—	263
Customer accounts*		30,152	—	—	—	—	—	30,152
Other financial liabilities		1,987	550	1,534	—	—	—	4,071
Total non-interest bearing financial liabilities and commitments		<u>32,402</u>	<u>575</u>	<u>1,534</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>34,511</u>
Total financial liabilities		<u>60,663</u>	<u>14,604</u>	<u>15,176</u>	<u>58,721</u>	<u>1,634</u>	<u>463</u>	<u>151,261</u>
* Including intercompany balances		6,772	593	—	—	—	—	7,365

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28. BANK FINANCIAL ASSETS AND LIABILITIES (Continued)

As of December 31, 2018	Weighted average interest rate	Up to 1 month	1 month to 3 months	3 months to 1 year	1 year to 5 years	Over 5 years	Total
Interest bearing financial liabilities							
Due to banks	7.6%	1,262	8	—	—	—	1,270
Customer accounts*	6.3%	12,410	7,900	47,490	1,644	—	69,444
Debt securities issued	9.5%	12	316	258	912	857	2,356
Lease obligations*		22	41	162	218	5	448
Total interest bearing financial liabilities		13,707	8,265	47,910	2,774	862	73,518
Non-interest bearing financial liabilities							
Financial liabilities at fair value							
through profit or loss		—	—	373	—	—	373
Due to banks		6,482	—	—	—	—	6,482
Customer accounts*		48,854	—	—	—	—	48,854
Other financial liabilities		750	159	1,655	—	—	2,564
Total non-interest bearing financial liabilities and commitments		56,086	159	2,028	—	—	58,273
Total financial liabilities		69,793	8,424	49,938	2,774	862	131,791
* Including intercompany balances		(16,469)	(6)	(20)	(3)	—	(16,498)

Information on the maximum amount of credit risk on guarantees issued and commitments on loans is presented below:

As of December 31, 2019	Stage 1	Stage 2	Stage 3	Total
Commitments on loans	18,890	1,909	13	23,812
Guarantees issued	18,204	1,398	244	19,846
Less provision	(339)	(17)	(47)	(403)
Total commitments on loans and guarantees issued	36,755	6,290	210	43,255
As of December 31, 2018				
Commitments on loans	18,156	525	11	18,692
Guarantees issued	10,031	351	428	10,810
Less provision	(201)	(25)	(219)	(445)
Total commitments on loans and guarantees issued	27,986	851	220	29,057

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29. FINANCIAL RISK MANAGEMENT

As part of its business the Group is exposed to several types of financial risks: capital risk (mainly by MTS Bank), market risks, credit (or counterparty) risks, and liquidity risks. Risks mitigating activities are mainly performed at the Group headquarters by the corporate finance personnel and are subject to the approval of the Group's supervisory bodies—the Board of Directors and its Budget Committee.

Capital risk

MTS Bank, a subsidiary of the Group, is subject to regulations of the Central Bank of Russia which require that banks comply with minimum capital adequacy ratio of 8% calculated on the basis of statutory standalone financial statements. MTS Bank meets the requirements established by the CBR. As of December 31, 2019 and 2018, the capital adequacy ratio of MTS Bank in accordance with CBR requirements was 14.1% and 11.9% respectively.

Basel Capital Accord (Basel 1) requires that banks that operate internationally have a capital adequacy risk ratio of 8% of their risk-weighted assets for the total amount of capital and 4%—for the tier 1 capital. MTS Bank meets the requirements established by the Accord. As of December 31, 2019 the capital adequacy ratio of MTS Bank was 9.89% and 7.78% (2018: 18.38% and 13.34%).

Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate due to changes in market prices. The Group is primarily exposed to the following types of market risks: interest rate risk and currency exchange rates fluctuations. Financial instruments affected by market risk include loans and borrowings, deposits, and derivative financial instruments. The sensitivity analyses in the following sections relate to the financial position as of December 31, 2019 and 2018.

Interest rate risks

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market interest rates. The Group manages its interest rate risk by having a balanced portfolio of fixed and variable rate loans and borrowings.

- Variable interest rate

The Group's bank loans denominated in US Dollars and Euros primarily bear floating interest rate. To eliminate the exposure of changes in variable interest rates related to its debt obligations, the Group enters into variable-to-fixed cross-currency interest rate swap agreements, so that cross-currency interest rate swaps matches the exact maturity dates of the underlying debt allowing for highly-effective cash flow hedges. In aggregate, the Group entered into variable-to-fixed cross-currency interest rate swap agreements designated to manage the exposure of changes in variable interest rates related to nil and 100% of the Group's bank loans with variable rates outstanding as of December 31, 2019 and 2018, respectively.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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29. FINANCIAL RISK MANAGEMENT (Continued)

- Fixed interest rate risk

The Group's notes and bank loans denominated in Russian Rubles bear primarily fixed interest rates. To eliminate the exposure of changes in the value of debt obligations, the Group enters into fixed-to-variable cross-currency and interest rate swap agreements. In aggregate, the Group entered into fixed-to-variable cross-currency and interest rate swap agreements designated to manage the exposure of changes in value of the debt related to 5.8% of the Group's notes and bank loans with fixed rates outstanding as of December 31, 2019 and 2018.

The notional amounts of interest rate derivative instruments outstanding amounted to RUB 25,387 million and RUB 44,187 million as of December 31, 2019 and 2018, respectively.

Sensitivity analysis

A reasonably possible increase of 100 basis points in short term interest rates would have resulted in RUB 271 million, RUB 201 million and RUB 44 million future increases of interest expense for the years ended December 31, 2019, 2018 and 2017, respectively. The same decrease in short term interest rates would have resulted in RUB 271 million, RUB 201 million and RUB 44 million future decreases of finance cost for the years ended December 31, 2019, 2018 and 2017, respectively. There will be no material impact on equity.

The interest rate sensitivity analysis was performed based on a constant level of fixed and floating rate debt.

Foreign currency risks

Foreign currency risk is the risk that the fair value or future cash flows will fluctuate because of changes in foreign exchange rates. The Group's exposure to these changes in foreign exchange rates relates primarily to the Group's financing activities. The Group manages its currency risk by hedging significant foreign currency cash outflows with derivatives and by using money market instruments.

The Group has entered into several cross-currency swap agreements. These contracts are mainly designated to manage the exposure of changes in currency exchange rate. The contracts assumed periodic exchange of interest or principal, and interest payments from RUB-denominated amounts to USD-denominated amounts at a specified rate. The rate was determined by the market spot rate upon issuance. Cross-currency interest rate swap contracts mature in 2023-2024.

In aggregate the Group entered into cross-currency interest rate swap agreements designated to manage the exposure of changes in currency exchange rate for 40.0% and 50.8% of its USD-denominated notes and bank loans outstanding as of December 31, 2019 and 2018 respectively.

The notional amounts of currency derivative instruments amounted to RUB 18,572 million and RUB 34,115 million as of December 31, 2019 and 2018 respectively.

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29. FINANCIAL RISK MANAGEMENT (Continued)

The Group has entered into currency forward and swaps agreements to minimize the foreign currency risk exposure for operating activities. The contracts assumed the purchase or sale of the agreed amount of currency at a specified exchange rate and on a specific date. The rate was determined by the market spot rate upon issuance. As the result of currency forward and swap agreements, unfulfilled as of December 31, 2019, 2018 and 2017, the Group recognized RUB 701 million gain, RUB 1,937 million gain and nil in the consolidated statement of profit and loss for the years ended December 31, 2019, 2018 and 2017, respectively.

The notional amounts of currency forward and swap instruments, unfulfilled as of December 31, 2019 and 2018, amounted to RUB 69,535 million and RUB 51,002 million, respectively.

In 2018-2019, several swap agreements were ceased to be hedge instruments due to the earlier redemption of hedged loans from Calyon, ING Bank N.V, Nordea Bank AB, Raiffeisen Zentralbank Osterreich AG, Citibank and subsequently several swap agreements were early terminated. Loans and swaps were due in 2019 - 2024. The amount of RUB 12 million and RUB 505 million, net of tax, was immediately reclassified from accumulated other comprehensive income to profit for the year during the years ended December 31, 2019 and 2018, respectively, and recognized as a part of change in fair value of financial instruments' in consolidated statement of profit or loss.

The following table presents the effect of the Group's swap agreements designated as cash flow hedges in accumulated other comprehensive income

	For the years ended December 31,		
	2019	2018	2017
Accumulated derivatives income / (loss), beginning of the year, net of tax of 59 and 85 and (26), respectively	237	340	(103)
Fair value adjustments on hedging derivatives, net of tax of (773) and 840 and (628), respectively	(3,094)	3,362	(2,512)
Amounts reclassified to loss / (profit) for the year during the period— forecast transaction no longer expected to occur, net of tax of 3 and (126) and nil, respectively	12	(505)	—
Amounts reclassified to loss / (profit) for the year during the period—hedged item has affected profit or loss, net of tax of 711 and (740) and 739, respectively	<u>2,845</u>	<u>(2,960)</u>	<u>2,955</u>
Accumulated derivatives income, end of the year, net of tax of nil and 59 and 85, respectively	<u>—</u>	<u>237</u>	<u>340</u>

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29. FINANCIAL RISK MANAGEMENT (Continued)

The following tables demonstrate the sensitivity to a reasonably possible change in USD and EUR exchange rates, with all other variables held constant.

	Change in rate, USD	USD—effect on profit before tax RUB mln	Change in rate, EUR	EUR—effect on profit before tax RUB mln
2019	+5%	2,516	+1%	120
	–5%	(2,516)	–1%	(120)
2018	+1%	(176)	+1%	152
	–1%	176	–1%	(152)
2017	+5%	(447)	+5%	830
	–5%	447	–5%	(830)

The movement in the pre-tax effect is a result of a change in monetary assets and liabilities denominated in US dollars and Euro, where the functional currency of the entity is a currency other than US dollars and Euro.

There will be no material impact on equity.

The Group's exposure to foreign currency changes for all other currencies is not material.

MTS Bank credit limits committee determines stop-loss limits related to security portfolio and to foreign exchange transactions, as well as limits for net foreign exchange position. The limits for net foreign exchange position conform fully to CBR requirements. Monitoring of adherence to the limits restricting the amount of MTS Bank's market risk is performed day-to-day.

Liquidity risk

Liquidity risk is the risk of a shortage of funds. The Group's policy is to borrow centrally using a mixture of long-term and short-term borrowing facilities. These borrowings, together with cash generated from operations are utilized to meet anticipated funding requirements. The Group assessed the concentration of risk with respect to refinancing its debt and determined it to be of low level.

The Group manages liquidity risk on long-term borrowings by maintaining a varied maturity profile and a required net debt position, therefore minimizing the refinancing risk. Long-term borrowings mature between one and 7 years.

Securities held by MTS Bank which are accounted for at fair value through profit and loss and investments at amortized cost are included in liquidity analysis on the basis of remaining maturity. Most of these securities are included in the CBR Lombard list and if required may be used to obtain REPO financing from the CBR. MTS Bank's demand for medium-term liquidity is fully satisfied by the availability of interbank loans and customer deposits (obtaining new and prolongating existing deposits), secured loans and conclusion of REPO agreements.

As at December 31, 2019, the Group's consolidated current liabilities exceeded current assets by RUB 154,607 million. The management believes the Group has sufficient existing and continuing access to liquidity through both operating cash flows and the availability of committed credit facilities of RUB 363,000 million (Note 23).

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29. FINANCIAL RISK MANAGEMENT (Continued)

Credit risk

Credit risk is the risk that the counterparty will not meet its obligations arising from entering into financial instrument, leading to a financial loss.

In accordance with IFRS 9 the Group records an allowance for expected credit losses (ECL) for all financial assets not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due under the contract and all cash flows that the Group expects to receive. The shortfall is discounted at an approximation to the asset's original effective interest rate.

The expected credit-loss approach uses three stages for allocating impairment losses:

Stage 1: expected credit losses within the next twelve months

Stage 1 includes all contracts with no significant increase in credit risk since initial recognition and usually contains new contracts that are fewer than 31 days past due date. The portion of the lifetime expected credit losses resulting from default events possible within the next 12 months is recognized.

Stage 2: expected lifetime credit losses—not credit impaired

If a financial asset has a significant increase in credit risk since initial recognition but is not yet credit impaired, it is moved to stage 2 and measured at lifetime expected credit loss. This is defined as the expected credit loss that results from all possible default events over the expected life of the financial instrument.

In all cases, the Group considers that there has been a significant increase in credit risk when the contractual payment is more than 30 days past due.

Stage 3: expected lifetime credit losses—credit impaired

If a financial asset is defined as credit impaired or in default, it is transferred to stage 3 and measured at lifetime expected credit loss. Objective evidence for a credit-impaired financial asset includes 91 days past due date as well as other information indicating significant financial difficulties of the borrower. The Group considers a financial asset to be in default when the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realizing security (if any is held).

The determination of whether a financial asset has experienced a significant increase in credit risk is based on an assessment of the probability of default, which is made at least quarterly, incorporating external credit rating information as well as internal information on the credit quality of the financial asset. For debt instruments that are not receivables from financial services, a significant increase in credit risk is assessed mainly based on past-due information.

For contract assets, trade and other receivables, a simplified approach is applied whereby ECL are initially measured over the lifetime of the instrument.

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29. FINANCIAL RISK MANAGEMENT (Continued)

The Group considers its exposure to credit risk as of December 31, 2019, and 2018 to be as follows:

	December 31,	
	2019	2018
Deposits and loans issued	94,757	83,865
Trade and other receivables	39,151	37,143
Cash and cash equivalents	38,070	84,075
Notes	15,957	31,235
Securities held by MTS Bank	13,273	22,487
Mutual funds	9,349	—
Assets in Sistema Capital trust management	8,195	11,644
Contingent consideration	2,013	—
Derivative financial instruments	370	6,074

In accordance with the Group's financial instruments management policy, the aggregate credit risk exposure that the Group may have to one counterparty is limited. The Group maintains a mixture of cash and cash equivalents, investments, derivatives and certain other financial instruments with financial institutions. The relevant financial institutions are located in different geographical regions and the Group's policy is designed to limit its exposure to any single institution or geographical region. As part of its risk management processes, the Group performs periodic evaluations of the relative credit standing of these financial institutions.

MTS Bank performs daily monitoring of future expected cash flows on the operations of both clients and banks, which is a part of the management process of assets and liabilities. The credit risk exposure is monitored on a regular basis to ensure that the credit limits and credit worthiness guidelines established by the MTS Bank's risk management policy are not breached.

Concentrations of credit risk with respect to trade receivables are limited given that the Group's customer base is large and unrelated. Therefore, management believes there is no further credit risk provision required in excess of the normal provision for bad and doubtful receivables.

30. RELATED PARTIES

Related parties include the controlling shareholder of the Group, entities under common ownership with the Group, affiliated companies, associated and joint ventures.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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30. RELATED PARTIES (Continued)

The aggregated impact of transactions with related parties to the Group's statements of financial position as of December 31, 2019 and 2018 and statements of profit or loss for the years then ended was the following:

	<u>December 31,</u>		
	<u>2019</u>	<u>2018</u>	
Statements of financial position:			
Accounts receivable, non-current	10,787	2,545	
Short-term investments	17,790	12,086	
Accounts receivable, current	5,872	6,385	
Rights of use assets	4,526	1,359	
Bank loans to customers, non-current	4,150	612	
Advances given for property, plant and equipment	3,866	1,380	
Bank loans to customers, current	1,677	2,244	
Purchases of property, plant and equipment, intangible assets and other assets	1,244	6,647	
Cash and cash equivalents	282	938	
Other investments	149	149	
Bank deposits and liabilities, current	(41,198)	(42,642)	
Dividends payable	(11,747)	—	
Lease obligations, non-current	(5,160)	(1,007)	
Bank deposits and liabilities, non-current	(153)	(1,044)	
Lease obligations, current	(763)	(185)	
Accounts payable	(558)	(1,301)	
 Statements of profit or loss			
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenue	(4,932)	(4,352)	(3,349)
Operating (income) / expenses	(1,137)	2,396	4,053
Finance income	(1,662)	(1,398)	(1,267)
Interest expenses under lease arrangements	447	135	—

Terms and conditions of transactions with related parties—Outstanding balances as of December 31, 2019 and 2018 were unsecured and settlements are made on a cash basis. There have been no guarantees provided or received for any related party receivables or payables. As of December 31, 2019, the Group had no significant amounts of impairment relating to receivables owed by related parties as well as expenses recognized during the years ended December 31, 2019 and 2018 in respect to bad or doubtful debts from related parties.

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30. RELATED PARTIES (Continued)

Accounts receivable from and accounts payable to related parties were as follows:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Accounts receivable:		
Business Nedvizhimost, a subsidiary of Sistema	9,517	2,561
Sistema, parent company	5,267	2
Sitronics, a subsidiary of Sistema	680	1,107
Zifrovoe TV, a Group's associate	392	764
MTS Belarus, a Group's associate	194	4,095
Other related parties	609	401
Total accounts receivable, related parties	<u>16,659</u>	<u>8,930</u>
Less non-current portion	(10,787)	(2,545)
Accounts receivable, related parties, current	<u>5,872</u>	<u>6,385</u>
Accounts payable:		
Business Nedvizhimost, a subsidiary of Sistema	191	34
Zifrovoe TV, a Group's associate	100	44
Yahont, an associate of Sistema	78	—
Moscow Business Incubator, an associate of Sistema	56	152
TelecomCapStroi, a subsidiary of Sistema	55	237
MTS Belarus, a Group's associate	5	678
Other related parties	73	156
Total accounts payable, related parties	<u>558</u>	<u>1,301</u>

The Group has neither the intent nor the ability to offset the outstanding accounts payable and accounts receivable with related parties under the terms of existing agreements.

The Group makes advances for the purchase of property, plant and equipment, intangible assets and other assets to related parties which are summarized as follows:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Advances given for property, plant and equipment:		
TelecomCapStroi, a subsidiary of Sistema	2,319	1,317
Yahont, an associate of Sistema	1,359	—
Other related parties	188	63
Total advances given for property, plant and equipment, related parties	<u>3,866</u>	<u>1,380</u>

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30. RELATED PARTIES (Continued)

	<u>2019</u>	<u>2018</u>
Purchases of property, plant and equipment, intangible assets and other assets:		
Yahont, an associate of Sistema	340	—
Business Nedvizhimost, a subsidiary of Sistema	329	328
Zifrovoe TV, a Group’s associate	179	28
Segezha Group, a subsidiary of Sistema	125	—
TelecomCapStroi, a subsidiary of Sistema	83	93
Moscow Business Incubator, an associate of Sistema	—	4,450
Mosdachtrest, a subsidiary of Sistema	—	1,711
Other related parties	<u>188</u>	<u>37</u>
Total purchases of property, plant and equipment, intangible assets and other assets, related parties	<u>1,244</u>	<u>6,647</u>

Rights-of-use assets and lease obligations—The following table represents carrying value of right-of-use assets leased from related parties:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Carrying value of right-of-use assets:		
Business Nedvizhimost, a subsidiary of Sistema	3,980	919
Kronshtadt, a subsidiary of Sistema	132	121
Other related parties	<u>414</u>	<u>319</u>
Total carrying value of right-of-use assets, related parties	<u>4,526</u>	<u>1,359</u>

The following table presents summary of lease obligations which arose from lease arrangements with related parties:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Lease obligations:		
Business Nedvizhimost, a subsidiary of Sistema	5,504	793
Kronshtadt, a subsidiary of Sistema	87	109
Other related parties	<u>332</u>	<u>290</u>
Total lease obligations, related parties	<u>5,923</u>	<u>1,192</u>
Less non-current portion	<u>(5,160)</u>	<u>(1,007)</u>
Lease obligations, related parties, current	<u>763</u>	<u>185</u>

Interest expense accrued on these lease obligations for the years ended December 31, 2019 and 2018 amounted to RUB 447 million and RUB 135 million, respectively and was included in finance costs in the accompanying consolidated statements of profit or loss.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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30. RELATED PARTIES (Continued)

Bank loans to customers, interbank loans due—The following table presents loans given by MTS Bank to related parties:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Bank loans to customers:		
Etalon LenSpecCMU, an associate of Sistema	1,982	—
Sistema, parent company	1,440	254
Kronshtadt, a subsidiary of Sistema	1,280	1,395
Leader-Invest, an associate of Sistema	895	612
Binnopharm, an associate of Sistema	—	412
Sistema Finance, a subsidiary of Sistema	—	183
Other related parties	230	—
Total bank loans due, related parties	<u>5,827</u>	<u>2,856</u>
Less non-current portion	(4,150)	(612)
Bank loans due, related parties, current	<u>1,677</u>	<u>2,244</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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30. RELATED PARTIES (Continued)

Bank deposits and liabilities—The following table presents deposits in MTS Bank held by related parties:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Bank deposits and liabilities:		
Key management personnel of the Group and its parent	31,634	29,658
Sistema Capital, a Group's associate	2,586	239
Project Michurinskiy, an associate of Sistema	1,448	952
Sistema Telecom Activy, a subsidiary of Sistema	1,300	1,542
Yahont, an associate of Sistema	802	—
Sitronics, a subsidiary of Sistema	655	525
Sistema Venture Capital, a subsidiary of Sistema	289	319
BF-Sistema, a subsidiary of Sistema	244	233
Sistema, parent company	242	4,610
TelecomCapStroi, a subsidiary of Sistema	211	238
UK LandProfit, formerly named Sistema Real Estate, a subsidiary of Sistema	205	599
Zifrovoe TV, a Group's associate	93	536
Medsi Group, a subsidiary of Sistema	58	745
BashRES, a subsidiary of Sistema	29	309
Business Nedvizhimost, a subsidiary of Sistema	8	226
Leader-Invest, an associate of Sistema	5	433
Sistema Finance, a subsidiary of Sistema	4	338
RTI, a subsidiary of Sistema	—	323
Other related parties	<u>1,538</u>	<u>1,861</u>
Total bank deposits and liabilities, related parties	<u>41,351</u>	<u>43,686</u>
Less non-current portion	<u>(153)</u>	<u>(1,044)</u>
Total bank deposits and liabilities, current	<u>41,198</u>	<u>42,642</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Amounts in millions of Russian Rubles unless otherwise stated)

30. RELATED PARTIES (Continued)

Investing transactions—The Group holds certain investments in related parties which are summarized as follows:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Short-term investments:		
Sistema Capital, a Group's associate (Mutual funds)	9,349	—
Sistema Capital, a Group's associate (Assets management)	8,195	11,644
Promissory notes of Sitronics, formerly named Intellect Telecom, a subsidiary of Sistema	246	283
Other loans receivable	—	159
Total short-term investments in related parties	<u>17,790</u>	<u>12,086</u>
Other investments in shares:		
Sistema Venture Capital, a subsidiary of Sistema	117	117
Other investments	32	32
Total investments in shares, related parties	<u>149</u>	<u>149</u>

Dividends payable—The following table presents dividends payable to related parties:

	<u>December 31,</u>
	<u>2019</u>
Dividends payable:	
Sistema, parent company	8,409
Sistema Telecom Activy, a subsidiary of Sistema	2,921
Sistema Finance S.A., a subsidiary of Sistema	417
Total dividends payable, related parties	<u>11,747</u>

As of December 31, 2018 there were no dividends payable to the related parties.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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30. RELATED PARTIES (Continued)

Operating transactions—For the years ended December 31, 2019, 2018 and 2017, operating transactions with related parties were as follows:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenues from related parties:			
Segezha Group, subsidiaries of Sistema (providing energy resources by MTS Energy, software supply)	1,790	74	23
Sitronics, a subsidiary of Sistema (internet services and video/images translation services)	1,018	1,195	303
Kronshtadt, a subsidiary of Sistema (banking services and rent)	303	58	13
MTS Belarus, a Group's associate (roaming and interconnect services)	296	296	248
Leader-Invest, an associate of Sistema, a former subsidiary of Sistema (banking services and rent)	203	56	4
Zifrovoe TV, a Group's associate (subscriber acquisition services)	193	508	724
Medsi Group, a subsidiary of Sistema (telecommunication and call center services)	157	166	156
BashRES, a subsidiary of Sistema (information security system project)	129	53	89
Sistema, parent company (consulting services)	127	80	32
Detskii Mir, an associate of Sistema, a former subsidiary of Sistema (telecommunication services)	101	175	188
MTS Bank, a former Group's associate (telecommunication and call center services, bank cards distribution commission)	—	1,271	1,507
Other related parties	615	420	62
Total revenues from related parties	<u>4,932</u>	<u>4,352</u>	<u>3,349</u>
Operating (income) / expenses incurred on transactions with related parties:			
Koncel, a subsidiary of Sistema (dismantling and scrap metal realization)	(3,328)	(1,141)	—
Business Nedvizhimost, a subsidiary of Sistema (rent and sale of property)	(1,301)	39	821
Sistema Finance, a subsidiary of Sistema (change in fair value of financial instruments of MTS Bank)	(289)	325	—
Key management personnel of the Group (interest expense)	1,973	705	—
Sistema, parent company (interest expenses (deposits and accounts), MTS Bank)	377	284	—
AB Safety, a subsidiary of Sistema (security services)	299	324	302
Jet Air Group, a subsidiary of Sistema (transportation services)	142	135	172
Sitronics, a subsidiary of Sistema (discounting debt)	107	20	—
Project Michurinskiy, an associate of Sistema (interest expenses (deposits and accounts), MTS Bank)	104	28	—
Sistema-Capital, a Group's associate (manager reward)	97	—	—
MTS Belarus, a Group's associate (roaming and interconnect services)	87	104	121
UK LandProfit, formerly named Sistema Real Estate, a subsidiary of Sistema ((interest expenses (deposits and accounts) and rent, MTS-Bank)	45	17	—
MTS Bank, a former Group's associate (commission related expenses)	—	1,217	2,259
Other related parties	550	339	378
Total operating (income) / expenses incurred on transactions with related parties	<u>(1,137)</u>	<u>2,396</u>	<u>4,053</u>

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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30. RELATED PARTIES (Continued)

Finance income from investment transactions with related parties for the years ended December 31, 2019, 2018 and 2017 was the following:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Finance income/(loss) from related parties			
Business Nedvizhimost, a subsidiary of Sistema	827	353	359
Sistema Capital, a Group's associate (assets management)	474	465	369
Sistema, parent company	367	4	48
MTS Bank, a former Group's associate	—	448	345
Other related parties	<u>(6)</u>	<u>128</u>	<u>146</u>
Total finance income from related parties	<u>1,662</u>	<u>1,398</u>	<u>1,267</u>

MTS Bank—On July 5, 2018 the Group acquired the controlling stake in MTS Bank and thus it ceased to be a related party to the Group since the acquisition date.

East-West United Bank—The Group maintains certain bank accounts with East-West United Bank, a subsidiary of Sistema. As of December 31, 2019 and 2018, the Group's cash position at East-West United Bank amounted to RUB 282 million and RUB 938 million, respectively.

Business Nedvizhimost—In 2015, the Group sold its 100% stake in Rent Nedvizhimost to Business Nedvizhimost, subsidiary of Sistema, for RUB 8,500 million in total. As of December 31, 2019 and 2018 the balance of related accounts receivable amounted to RUB 2,916 million and RUB 2,561 million, respectively. The amount as of December 31, 2019 is due before December 31, 2021 and bears an interest of CBR key rate + 1.5% p.a.

In December 2018, the Group sold its 40.26% stake in a mutual investment fund Sistema-Rentnaya Nedvizhimost to Business Nedvizhimost for RUB 450 million. The investment in the joint venture amounted to RUB 658 million as of December 31, 2019 (Note 15).

In March 2019, in order to optimize the processes of real estate management, the Group sold a number of buildings with carrying value of RUB 1,479 million to Business Nedvizhimost for the consideration of RUB 7,247 million (including VAT). The consideration will be paid by installments for 10 years at 9% per annum with the collateral in the form of disposed buildings granted by the buyer. At the same time, the Group entered into a number of agreements to lease spaces in the buildings sold for the period of up to 15 years (leaseback).

As a result of this transaction, the Group recorded rights-of-use assets of RUB 3,123 million, lease obligation of RUB 5,197 million and recognized a gain in the amount of RUB 1,745 million as a part of "Other income" in consolidated statement of profit or loss.

Sistema Capital—In 2016 and 2017 the Group entered into trust agreements with asset management company Sistema Capital. As of December 31, 2019 and 2018, the balance of assets under trust management amounted to RUB 8,195 million and RUB 11,644 million respectively (Note 14).

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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30. RELATED PARTIES (Continued)

In December 2019, the Group acquired a share in mutual investment funds of Sistema Capital “Rezervny” and “Rezervny. Valyutny” for RUB 5,665 million and 3,678 million, respectively. As at December 31, 2019 the fair value of the shares amounted to 5,682 million and 3,667 million, respectively, with the subsequent revaluation to be recognized in profit or loss (Note 14).

Sistema—In March 2019, the Group disposed of its 18.69% interest in the Group’s associate OZON to Sistema for RUB 7,902 million (Note 15). As of December 31, 2019 the balance of accounts receivable amounted to RUB 5,267 million.

Remuneration of key management personnel—Key management personnel of the Group are members of the Board of Directors and Management Board. During the years ended December 31 2019, 2018 and 2017 their total remuneration amounted to RUB 1,574 million, RUB 816 million and RUB 739 million, respectively. These amounts comprised RUB 917 million, RUB 504 million and RUB 490 million in base salaries and 657 RUB million, RUB 312 million and RUB 249 million in bonuses paid pursuant to a bonus plan, respectively.

The management and directors are also entitled to cash-settled and equity-settled share-based payments. Related compensation accrued during the years ended December 31 2019, 2018 and 2017 amounted to RUB 798 million, RUB 554 million and RUB 486 million, respectively.

31. SHAREHOLDERS’ EQUITY

Common stock (ordinary shares)—The Group had 1,998,381,575 authorized and issued ordinary shares with par value 0.1 RUB as of December 31, 2019 and 2018. Preferred shares have not been authorized and issued.

Shares of common stock repurchased by the Group are recorded at cost as treasury stock and reduce the shareholders’ equity in the Group’s consolidated financial statements. As of December 31, 2019, the total shares in treasury stock comprised 225,547,422 and 1,772,834,153 shares were outstanding. As of December 31, 2018, the total shares in treasury stock comprised 167,638,899, and 1,830,742,676 shares were outstanding.

Information on shares repurchased by the Group for the years ended December 31, 2019, 2018 and 2017 is presented as follows:

	2019		2018		2017	
	Shares	RUBm	Shares	RUBm	Shares	RUBm
Tender offer:						
Open market	—	—	—	—	16,022,364	4,647
Sistema Finance	—	—	—	—	16,038,892	4,651
Repurchase plan:						
Open market	28,790,050	7,485	35,981,664	10,328	43,647,128	12,475
Sistema Finance	28,929,344	7,450	45,269,718	12,294	—	—
Total	57,719,394	14,935	81,251,382	22,622	75,708,384	21,773

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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31. SHAREHOLDERS' EQUITY (Continued)

Nature and purpose of reserves

Additional paid in capital is used to recognize equity-settled share-based payment transactions, results of capital transactions under common control; changes in ownership interest in subsidiaries that do not result in gain/loss of control and the excess of cash received over the acquisition cost of treasury shares.

Share-based payment programs—Equity-settled share-based payment transactions are measured at fair value on the grant date. The fair value of the obligation is recognized as personnel costs over the vesting period and offset against capital reserves.

Foreign currency translation reserve is used to record exchange differences arising from the translation of foreign subsidiaries financial statements from their functional to the presentation currency.

Cash flow hedging reserve is used to record the accumulated impact of derivatives designated as cash flow hedges and revaluation of investments available for sale.

Remeasurements of the net defined benefit liability is used to recognize actuarial gains and losses related to the pension program set for employees of the Group's subsidiary MGTS.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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31. SHAREHOLDERS' EQUITY (Continued)

The following table represents roll forward of reserves balances for the years ended December 31, 2019, 2018 and 2017:

	Foreign currency translation reserve	Cash flow hedging reserve	Remeasurements of the net defined benefit liability
Balances at January 1, 2017	(6,418)	(155)	543
Other comprehensive loss for the year	(2,620)	(3,140)	(40)
Less: tax benefit	—	628	—
Amounts reclassified to profit for the year	—	3,748	—
Less: tax expense	—	(741)	—
Amounts reclassified to additional paid in capital	(659)	—	—
Less: tax expense	—	—	—
Net other comprehensive (loss) / income for the year	(3,279)	495	(40)
Balances at December 31, 2017	(9,697)	340	503
Other comprehensive income for the year	7,726	4,202	167
Less: tax benefit	—	(840)	—
Amounts reclassified to profit for the year	—	(4,331)	—
Less: tax expense	—	866	—
Net other comprehensive income / (loss) for the year	7,726	(103)	167
Balances at December 31, 2018	(1,971)	237	670
Other comprehensive income for the year	721	(3,867)	—
Less: tax expense	—	773	—
Amounts reclassified to profit for the year	7,947	3,571	—
Less: tax benefit	—	(714)	—
Net other comprehensive income / (loss) for the year	8,668	(237)	—
Balances at December 31, 2019	6,697	—	670

Non-controlling interests

As of December 31, 2019 and 2018, MGTS and MTS Bank were the only subsidiaries of the Group, which had material non-controlling interests.

The summarized financial information of MGTS and MTS Bank is presented as follows:

<u>MGTS</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Non-controlling interests opening balance	(3,649)	(4,180)	(4,787)
Profit for the year attributable to non-controlling interests	(806)	(619)	(554)
Dividends to non-controlling interests	1,123	1,165	1,175
Other	4	(15)	(14)
Non-controlling interests closing balance	(3,328)	(3,649)	(4,180)

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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31. SHAREHOLDERS' EQUITY (Continued)

<u>MTS Bank</u>	<u>2019</u>	<u>2018</u>
Non-controlling interests opening balance	(8,698)	—
Profit for the year attributable to non-controlling interests	(51)	(378)
Acquisitions under common control	—	(8,320)
Acquisition of additional ownership interests	8,700	—
Other	(4)	—
Non-controlling interests closing balance	(53)	(8,698)

	<u>December 31,</u>	
<u>MGTS</u>	<u>2019</u>	<u>2018</u>
Current assets	16,271	31,842
Non-current assets	52,539	34,227
Current liabilities	(17,224)	(12,015)
Non-current liabilities	(19,641)	(15,304)

	<u>December 31,</u>	
<u>MTS Bank</u>	<u>2019</u>	<u>2018</u>
Current assets	100,230	92,037
Non-current assets	52,668	49,866
Current liabilities	(148,288)	(129,344)
Non-current liabilities	(2,303)	(2,964)

	<u>Year ended December 31,</u>		
<u>MGTS</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenue, gross of intercompany	(39,479)	(39,375)	(39,565)
Profit for the year, gross of intercompany	(14,148)	(10,846)	(9,719)

	<u>Year ended December 31,</u>		
<u>MTS Bank</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenue, gross of intercompany	(29,869)	(11,871)	—
Profit for the year, gross of intercompany	(1,318)	(468)	—

Dividends

As a leading telecommunications group with a home base in developing markets, the primary need of the Group is to maintain sufficient resources and flexibility to meet financial and operational requirements. At the same time, the Group continually seeks ways to create shareholder value through both its commercial and financial strategies, including organic and non organic development as well as the Group's capital management practices.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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31. SHAREHOLDERS' EQUITY (Continued)

The Group continues to include dividend payments as part of its commitment to maximizing shareholder value. Decisions on dividends are proposed by the Board of Directors and voted upon thereafter at a General Meeting of Shareholders. In determining the Company's dividend payout, the Board of Directors considers a variety of factors, including:

- Macroeconomic factors and levels of competitiveness in core markets,
- Cash flow from operations,
- The outlook for earnings growth,
- Capital expenditure requirements,
- Potential acquisition opportunities,
- The state of capital markets and
- The Group's liquidity position, and overall debt position.

For 2019-2021, MTS management commits to a minimum cumulative payout of RUB 28.0 per share per calendar year through semi-annual payments.

The Group may take decisions on the dividend payout based not only on annual results but also on interim results for three, six or nine months of the fiscal year. Annual and interim dividend payments, if any, must be recommended by the Board of Directors and approved by the shareholders.

In accordance with Russian laws, earnings available for dividends are limited to profits determined under Russian statutory accounting regulations, denominated in Russian Rubles, after certain deductions.

The following table summarizes the Group's declared cash dividends for the years ended December 31, 2019, 2018 and 2017:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Dividends declared (including dividends on treasury shares of 9,449, 3,037 and 1,337 respectively)	83,751	51,958	51,958
Dividends, RUB per ADS	83.82	52.00	52.00
Dividends, RUB per share	41.91	26.00	26.00

As of December 31, 2019 and 2018, dividends payable were RUB 23,079 million and RUB 146.2 million, respectively, and included in the trade and other payables within the consolidated statement of financial position.

32. LIABILITY UNDER PUT OPTION AGREEMENT

Until August 2019, the Group owned an 80% stake in Aramayo Investments Limited, the 100% indirect owner of MTS Armenia and had a call and put option agreement to acquire the remaining 20% stake. According to the aforementioned option agreement, the price for the remaining 20% stake option was determined by a pre-agreed independent appraiser and the call option could have been exercised by the Group up to December 31, 2018.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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32. LIABILITY UNDER PUT OPTION AGREEMENT (Continued)

In December 2018 the Group served a call notice on the minority shareholders of MTS Armenia to purchase the remaining 20% stake in Aramayo Investments Limited (and indirectly in MTS Armenia). The call option was exercised by offsetting the amount of the liability under put option with the due amount of the loan issued to the minority shareholders of MTS Armenia.

The acquisition of a stake took place in August 2019, bringing the Group's total ownership share to 100%.

The amount of the liability under the option agreement was RUB 3,629 million as of December 31, 2018 (Note 27).

33. COMMITMENTS AND CONTINGENCIES

Capital commitments—As of December 31, 2019, the Group had executed purchase agreements of approximately RUB 39,055 million to acquire property, plant and equipment, intangible assets and costs related thereto.

Agreement with Apple—In April 2017, the Group entered into an unconditional purchase agreement with Apple Rus LLC (“Purchase agreement”) to buy 615 thousand iPhone handsets at list prices at the dates of respective purchases over a period ending June 30, 2019. Pursuant to the agreement the Group is also required to incur certain iPhone advertising and promotion costs. As of December 31, 2019 the Group fully completed total purchase installment outlined by the agreement.

Taxation—Russia and other CIS countries currently have several laws related to various taxes imposed by both federal and regional governmental authorities. Applicable taxes include VAT, corporate income tax (profits tax), a number of turnover-based taxes, and payroll (social) taxes. Laws related to these taxes have not been in force for significant periods, in contrast to more developed market economies; therefore, the government's implementation of these regulations is often inconsistent or non-existent. Accordingly, few precedents regarding tax rulings have been established. Tax declarations, together with other legal compliance areas (for example, customs and currency control matters), are subject to review and investigation by a number of authorities, which are enabled by law to impose extremely severe fines, penalties and interest charges. These facts create tax risks in Russia and the CIS countries that are more significant than those typically found in countries with more developed tax systems.

Generally, according to Russian and Ukrainian tax legislation, tax declarations remain open and subject to inspection for a period of three years following the respective tax year. As of December 31, 2019, the tax declarations of MTS PJSC and other subsidiaries in Russia and Ukraine for the preceding three fiscal years were open for further review. Since 2016, MTS PJSC communicates with tax authorities through the Tax Monitoring regime, which enables it to disclose information and documents related to the calculation of its tax liabilities on-line.

Pricing of goods and services provided within the Group is subject to transfer pricing rules.

The management believes that it has adequately provided for tax liabilities in the accompanying consolidated financial statements. However, the risk remains that the relevant tax authorities could take different positions with regarding interpretive issues which could have a significant effect.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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33. COMMITMENTS AND CONTINGENCIES (Continued)

The Group assessed the following contingent liabilities in respect of additional tax settlements:

	December 31,	
	2019	2018
Contingent liabilities for additional taxes other than income tax	986	730
Contingent liabilities for additional income taxes	2,173	2,051

Licenses—In May 2007, the Federal Service for Supervision in the Area of Communications, Information Technologies and Mass Media awarded MTS a license to provide 3G services in Russia. The 3G license was granted subject to certain capital and other commitments.

In July 2012, the Federal Service for Supervision in the Area of Communications, Information Technologies and Mass Media allocated MTS the necessary license and frequencies to provide LTE telecommunication services in Russia. Under the terms and conditions of the LTE license, the Group is obligated to fully deploy LTE networks within seven years, starting from January 1, 2013, and deliver LTE services in each population center with over 50,000 inhabitants in Russia by 2019. Also, the Group is obligated to invest at least RUB 15 billion annually in the LTE roll-out until the network is fully deployed.

The management believes that as of December 31, 2019, the Group is in compliance with conditions of the aforementioned licenses.

Antimonopoly proceedings—In August 2018, the Federal Antimonopoly Service of Russia (“FAS Russia”) charged MTS and other federal operators with violation of antimonopoly laws in respect to establishing discriminatory terms and conditions for bulk SMS pricing for the banks with state-owned equity interest as compared to the terms and conditions for other banks and later—with establishing unreasonably high bulk SMS prices. In May 2019, FAS Russia considered that MTS had breached the provisions of antimonopoly laws in respect to establishing discriminatory terms and conditions for bulk SMS pricing and charging unreasonably high bulk SMS prices, prescribing MTS to cease its violations. MTS contested the decision and the prescription of FAS Russia in the Moscow Arbitration Court, which upheld the position of FAS Russia in November 2019, following by the Arbitration Court of Appeal in March 2020. It’s currently impossible to measure possible implications of the case reliably.

Potential adverse effects of economic instability and sanctions in Russia—In 2014 political and economic sanctions targeting certain Russian economic sectors were introduced by the EU, US and other countries. Sanctions were subsequently extended and there is significant uncertainty regarding the extent and timing of further sanctions. Furthermore, the Russian Ruble has significantly depreciated against the U.S. Dollar and Euro and Ruble interest rates have increased significantly after the Central Bank of Russia raised its key rate to 17% in December, 2014. In 2018, due to Russia’s ability to remain stable amid severe external shocks, Russia’s sovereign credit ratings were increased from “stable” to “positive”. The Central Bank of Russia has gradually decreased its key rate to 6.25% as of December 31, 2019.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
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33. COMMITMENTS AND CONTINGENCIES (Continued)

These factors resulted in a lower cost of capital and a stable rate of inflation. However, in Russia there is an uneven growth dynamics, which could have a negative impact on the Group's business including ability to obtain financing on commercially reasonable terms. The management believes it is acting appropriately to support the sustainability of the Group's business in the current circumstances. The Group has a hedging policy in place, which partly mitigates the variability of cash outflows, denominated in foreign currencies.

Anti-terror law—On July 1, 2018, a series of anti-terror laws (also known as “Yarovaya-Ozerov bundle of laws”) became effective in Russia. In general terms, the laws mandate that operators store and record phone conversations, text messages of subscribers, images, sounds, video and other types of communications by telecommunications operators for defined periods of time. Compliance with the laws require the construction of additional storage, processing and indexing centers. The Group expects the increase in related capital expenditures, which cannot be measured reliably.

Investigations into former operations in Uzbekistan—In March 2019, the Group reached a resolution with the United States Securities and Exchange Commission (“SEC”) and the United States Department of Justice (“DOJ”) relating to the previously disclosed investigation concerning the Group's former subsidiary in Uzbekistan.

The Group consented to the entry of an administrative cease-and-desist order (the “Order”) by the SEC.

The United States District Court for the Southern District of New York approved a deferred prosecution agreement (“DPA”) entered by the Group and a plea agreement entered into a subsidiary of the Group in Uzbekistan.

Under the agreements with the DOJ and SEC, the Group agreed to pay a total penalty of USD 850 million (RUR 59.1 billion as of December 31, 2018) to the United States, which was comprised of a criminal fine, criminal forfeiture and civil penalty. The Group provided a provision of USD 850 million (RUB 55.8 billion as of the date of accrual), which was recognized as a part of discontinued operations in the consolidated statements of profit or loss for the year ended December 31, 2018. In March 2019, the Group paid the total penalty of USD 850 million (RUR 55.6 billion as of the payment date).

Under the DPA and the Order, the Group agreed to appoint and in September 2019 appointed an independent compliance monitor. Pursuant to the DPA and the Order, the monitorship will continue for a period of three years starting from the appointment date, and the term of the monitorship may be terminated early or extended depending on certain circumstances, as ultimately determined and approved by the DOJ and SEC.

Class action complaint—In March 2019 a proposed class action complaint on behalf of Shayan Salim and all other persons similarly situated has been filed in the United States District Court for the Eastern District of New York against MTS PJSC and certain of its managers. The complaint is alleging certain securities law violations relating to the recently announced resolution of US government investigations related to the Group's former operations in Uzbekistan. The Group is reviewing the allegations and intends to defend its interests. It is currently impossible to measure possible implications and amount of claim reliably.

PJSC MOBILE TELESYSTEMS AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Amounts in millions of Russian Rubles unless otherwise stated)

34. SUBSEQUENT EVENTS

Ruble bonds placement—In February 2020, MTS issued exchange-traded bonds totaling RUB 15 billion with a coupon rate of 6.6% and a maturity of seven years.

Purchase of stake in Zelenaya Tochka—In February 2020 the Group purchased 51% stakes in Achemar Holdings Limited and Clarkia Holdings Limited, owners of the operational companies of «Zelenaya Tochka» Group, fixed-line operator in multiple regions of Russia. The purchase of 51% stake was accounted as investment in joint venture.