Management Discussion and Analysis
of the financial position and results of operations

for the year ended 31 December 2016

CONTENT

Forward-looking statement

The following review of our financial position and results of operations is based on, and should be read in conjunction with, our consolidated financial statements and related notes for the year ended 31 December 2016.

Certain information, including our forecasts and strategy, contains forward-looking statements and is subject to risks and uncertainties, domestically and internationally. In assessing these forward-looking statements, readers should consider various risk factors as the company's actual results may differ materially from the expected results discussed in this report.

Rounding

Certain monetary amounts, percentages and other figures included in this report are subject to rounding adjustments. On occasion, therefore, amounts shown in tables may not be the arithmetic accumulation of the figures that precede them, and figures expressed as percentages in the text and in tables may not total 100 percent. Changes for periods between monetary amounts are calculated based on the amounts in thousands of U.S. dollars stated in our consolidated financial statements, and then rounded to the nearest million or percent.

Executive overview

We are one of the world's leading producers of steel pipes for the oil and gas industry, a global company with extensive network of production facilities, sales companies and representative offices.

The principal activities of our company are the production and distribution of seamless and welded pipes, including pipes with the entire range of premium connections backed by extensive technical support.

Our plants produce almost the entire range of existing pipes used in the oil-and-gas sector, the chemical and petrochemical industries, energy and machine-building, construction and municipal housing, shipbuilding, aviation and aerospace, and agriculture.

We created an up-to date technological complex based on advanced scientific research, manufacturing high-quality competitive products.

Our operations are geographically diversified with manufacturing facilities in Russia, the United States, Canada, Romania, Kazakhstan and the Sultanate of Oman. We operate R&D centers in Russia and the U.S. Our global market presence is supported by a wide distribution network. In 2016, we delivered 74% of our tubular products to our customers located in Russia and 12% in North America. We estimate our share on global market of seamless OCTG at 16%.

We are the largest exporter of pipes in Russia. Exports of pipes produced by our Russian plants accounted for 13% of our total sales in 2016.

In 2016, we sold 3,458 thousand tonnes of steel pipes. Seamless pipes comprised 70% of our sales volumes. Sales of seamless and welded OCTG reached 1,426 thousand tonnes, a 2% year-on-year decrease, sales of LD pipe fell by 19% year-on-year to 516 thousand tonnes.

In 2016, our total consolidated revenue decreased by 19% to $3,338 million as compared to 2015. Adjusted EBITDA[1] declined to $530 million as compared to $651 million in the previous year. Adjusted EBITDA margin stayed almost flat at 16%.

Market conditions for 2016

The Russian pipe market declined by 10% year-on-year, due to significantly lower LDP demand in 2016 following the record high volumes of 2015. OCTG consumption increased by 4% compared to 2015, supported by the growth of drilling activity in Russia by 12% year-on-year.

In the US, the average number of rigs in 2016 fell by 6% compared to 2015 (Baker Hughes) and OCTG shipments decreased by 41% year-on-year (Preston Pipe Report).

Although pipe prices were falling in the European market during 2016, there was a positive price trend towards the end of the year with some pick up in pipe volumes.

Key events

In January, we signed a partnership memorandum with Rosneft regarding the implementation of the program of import substitution of pipes for offshore projects. The aim of the memorandum is to consolidate and further develop the interaction system between Rosneft and TMK in the development of import-substituting pipe products, including new kinds of products with high technical and economic characteristics that meet the international standards and requirements set out by Rosneft.

In February, we shipped a batch of vacuum insulated tubing (VIT) to Gazprom Dobycha Yamburg, which develops the Yamburgskoye and

[1] Adjusted EBITDA - See "Selected financial data".

Zapolyarnoye oil and gas condensate fields in the Yamal-Nenets Autonomous Area. The shipment included low-temperature resistant pipes with TMK UP FMT premium threaded connections. The tubes were produced at TMK's Sinarsky Pipe Plant.

In February, we signed an additional agreement with Gazprom to adjust pricing formula for large diameter pipe (LDP) sales. Adjusted formula takes into account metallurgical raw material cost, steel plate cost of production and freight, and LDP cost of production. Pricing formula also includes price adjustments related to currency exchange rates and inflation rates. Prices according to this agreement are set on a quarterly basis.

TMK NGS-Buzuluk, which is part of TMK Oilfield Services based in Buzuluk, the Orenburg Region, won a tender to provide technology and engineering supervision services for running casing for OOO Gazprom Geologorazvedka. In June–September 2016, TMK's experts supervised running casing into two prospecting and appraisal wells off the coast of Sakhalin Island, in the Sea of Okhotsk. TMK's products used in running casing included casing pipes with premium threaded connections.

In April, we completed a placement of RUB 5.0 billion Rouble bonds with a 13% coupon per annum payable on a semi-annual basis due April 2026 with a put option in April 2019.

In April, we signed a Technology Partnership Program for 2016–2020 with PJSOC Bashneft. The program provides for over 20 joint activities related to development, introduction and piloting of TMK products at Bashneft's oilfields.

In May, we signed contracts with Italian SMS MEER S.p.A. for the manufacture and supply of advanced equipment for seamless pipe heat treatment facilities to be built at Seversky Tube Works and TMK-ARTROM, Romania. The estimated capacity of heat treatment lines at TMK-ARTROM and Seversky Tube Works are 165 thousand tonnes and 265 thousand tonnes of heat-treated pipes per year, respectively.

Sinarsky Pipe Plant has launched production of a new type of boiler tube, commissioned by Krasny Kotelshchik Taganrog Boiler-Making Works, one of Russia's largest manufacturers of power engineering equipment. The 31.75 mm cold-drawn tube with 6.10 mm walls, produced to ASME SA-210/SA-210M international standard, will be used in the manufacture of equipment for the Long Phu 1 thermal power project in Vietnam.

On June 8, 2016, at the Annual General Shareholders' Meeting shareholders voted not to pay final dividends for the year 2015.

In July, we made the first shipment of tubular products for the construction of production wells on the Arctic shelf. The pipes were manufactured for Gazprom neft shelf to be used at the Prirazlomnoye oil field in the Pechora Sea.

On August 16, 2016, the share capital of the Company was increased by 41,228,106 ordinary shares with a par value of 10 Roubles each, by means of an open subscription at a price of 71 Roubles per share.

In August, we shipped a large batch of premium threaded connection pipe to Gazprom Dobycha Noyabrsk. The shipment comprised casing pipe with TMK GF and TMK FMC threaded connections, as well as tubing pipe with TMK FMT threaded connections. These products will be used for the construction of wells at the Chayandinskoye oil and gas condensate field, the core field of Gazprom's Yakutia gas production centre and a source of gas for the Power of Siberia pipeline currently under construction.

On September 29, 2016, the general shareholders' meeting approved interim dividends in respect of six months 2016 in the amount of 2,004 million Roubles ($31 million at the exchange rate at the date of approval) or 1.94 Roubles per share ($0.03 per share).

In August, Orsky Machine Building Plant, part of TMK Oilfield Services, has been qualified by Kuwait Oil Company, one of the Middle East oil majors, as an approved supplier of TMK UP FJ and TMK UP SF premium threaded connections.

In December, under the agreement with Gazprom for the supply of import-substituting tubular products, we shipped H2S-resistant tubing for use at the Astrakhanskoye oil and gas condensate field. The 89 mm and 114 mm C90SS-grade H2S-resistant tubular products were designed specifically for use at the Astrakhanskoye field, which produces hydrocarbons with high hydrogen sulfide (H2S) and carbon dioxide (CO2) content.

In February, 2017 we placed secondary public offering of 138,888,888 existing ordinary shares of PAO TMK.

Business structure

Our operating segments reflect TMK's management structure and the way financial information is regularly reviewed. For management purposes, TMK is organised into business divisions based on geographical location and has three reporting segments:

- *Russian division*: manufacturing facilities located in the Russian Federation, Kazakhstan and the Sultanate of Oman, and oilfield service companies and trading companies in Russia, Kazakhstan, Switzerland and the United Arab Emirates. The Russian division is engaged in the production and supply of seamless and welded pipe, premium products and the provision of related services to oil and gas companies;
- *American division*: manufacturing facilities and trading companies located in the United States and Canada. The American division is engaged in the production and supply of seamless and welded pipe, premium products and the provision of related services to oil and gas companies;
- *European division*: manufacturing facilities located in Romania and trading companies located in Italy and Germany. The European division is engaged in the production and supply of seamless pipe and steel billets.

Year ended 31 December 2016 results

Results of operations

In 2016, our sales volumes and main financial indicators decreased year-on-year, however we recognised a net profit compared to net loss in 2015.

	2016	2015	Change
	in million dollars		*in million dollars*
Sales volume *(in thousand tonnes)*	**3,458**	3,871	(413)
Revenue	**3,338**	4,127	(789)
Cost of sales	**(2,634)**	(3,282)	648
GROSS PROFIT	**704**	845	(141)
GROSS PROFIT MARGIN	***21%***	*20%*	
Net operating expenses [1]	**(437)**	(524)	86
(Impairment) / Reversal of impairment of assets	**(3)**	(352)	349
Foreign exchange gain/(loss), net	**130**	(141)	271
Gain/(loss) on changes in fair value of derivative financial instrument	**9**	(2)	12
Finance costs, net	**(263)**	(269)	6
Other non-operating income/(expenses)	**29**	0	29
PROFIT/(LOSS) BEFORE TAX	**169**	(443)	612
Income tax benefit/(expense)	**(4)**	75	(78)
NET PROFIT/(LOSS)	**166**	(368)	534
NET INCOME MARGIN	***5%***	*(9)%*	
ADJUSTED EBITDA	**530**	651	(121)
ADJUSTED EBITDA MARGIN	***16%***	*16%*	

[1] Net operating expenses include selling and distribution, general and administrative, advertising and promotion, research and development, share of profit in associate, gain on disposal of subsidiary and net other operating income/(expense).

Sales

In 2016, our consolidated revenue decreased by $789 million or 19%. A negative currency translation effect[1] was $296 million. Excluding this effect our revenue decreased by $492 million year-on-year.

Sales by reporting segments are as follows:

	2016	2015	Change	Change
	in thousand tonnes		*in thousand tonnes*	*in %*
Russia	**3,001**	3,252	(252)	(8)%
America	**282**	440	(158)	(36)%
Europe	**175**	178	(3)	(2)%
TOTAL PIPE	**3,458**	3,871	(413)	(11)%

	2016	2015	Change	Change
	in million dollars		*in millions dollars*	*in %*
Russia	**2,796**	3,189	(393)	(12)%
America	**368**	742	(374)	(50)%
Europe	**174**	196	(21)	(11)%
TOTAL REVENUE	**3,338**	4,127	(789)	(19)%

[1] The currency translation effect on income/expense items illustrates the influence of different exchange rates we use to convert these items from functional currencies into the presentation currency, the U.S. dollar, in different reporting periods for financial reporting purposes.

Sales by group of products are as follows:

	2016	2015	Change	Change
	in thousand tonnes		*in thousand tonnes*	*in %*
Seamless pipe	**2,412**	2,410	2	0%
Welded pipe	**1,046**	1,461	(415)	(28)%
TOTAL PIPE	**3,458**	3,871	(413)	(11)%

	2016	2015	Change	Change
	in million dollars		*in millions dollars*	*in %*
Seamless pipe	**2,340**	2,598	(258)	(10)%
Welded pipe	**833**	1,346	(513)	(38)%
TOTAL PIPE	**3,173**	3,944	(771)	(20)%
Other operations	**165**	183	(18)	(10)%
TOTAL REVENUE	**3,338**	4,127	(789)	(19)%

Russia. The division's revenue decreased by $393 million or 12% year-on-year mainly as a result of a negative currency translation effect in the amount of $294 million. Excluding this effect revenue decreased by $99 million.

Revenue from sales of *seamless* pipe increased by $144 million mainly due to better pricing and product mix, higher sales volumes also positively affected our revenue.

Revenue from sales of *welded* pipe decreased by $258 million as a result of significant drop in sales volumes primarily due to lower *LDP* demand following the record high volumes of 2015.

Revenue from other operations increased by $14 million mainly as a result of growth in coating services to external customers.

America. In the American division revenue decreased by $374 million or 50% year-on-year.

Lower drilling activity and reduced exploration and production expenses in North America caused a significant drop in sales volumes, primarily *OCTG*, and weaker pricing. As a result of unfavorable market environment revenue from sales of both *seamless* and *welded* pipe fell by $168 million and $184 million respectively.

Revenue from other operations decreased by $22 million.

Europe. In the European division revenue decreased by $21 million or 11% year-on-year. Unfavorable currency translation effect amounted to $3 million.

Revenue from sales of *seamless* pipe decreased by $21 million as compared to the last year mostly as a result of weaker pricing.

Revenue from other operations, mostly from *billets* sales, increased by $2 million as compared to previous year following higher sales volumes.

Gross profit

In 2016, our consolidated gross profit decreased by $141 million or 17% year-on-year and amounted to $704 million. The unfavorable currency translation effect was $98 million. Excluding this effect our gross profit decreased by $43 million. Gross profit margin improved to 21% from 20% in 2015.

Gross profit results by reporting segments are as follows:

	2016		**2015**		**Change**
	in million dollars	***in % to revenue***	***in million dollars***	***in % to revenue***	***in million dollars***
Russia	**746**	27%	817	26%	(70)
America	**(81)**	(22)%	(18)	(2)%	(62)
Europe	**38**	22%	46	24%	(8)
TOTAL GROSS PROFIT	**704**	21%	845	20%	(141)

Gross profit results by group of products are as follows:

	2016		**2015**		**Change**
	in million dollars	***in % to revenue***	***in million dollars***	***in % to revenue***	***in million dollars***
Seamless pipe	**606**	26%	657	25%	(51)
Welded pipe	**68**	8%	170	13%	(101)
TOTAL PIPE	**674**	21%	826	21%	(152)
Other operations	**30**	18%	18	10%	12
TOTAL GROSS PROFIT	**704**	21%	845	20%	(141)

Russia. The division's gross profit decreased by $70 million as a result of a negative currency translation effect in the amount of $98 million. Excluding this effect gross profit increased by $27 million. Gross profit margin increased from 26% to 27%.

Gross profit from sales of *seamless* pipe increased by $116 million as a result of better product mix and higher sales.

Gross profit from sales of *welded* pipe decreased by $106 million following lower sales volumes and higher raw material prices.

Gross profit from other operations increased by $17 million mainly as a result of growth in coating services to external customers.

America. The American division's gross profit decreased by $62 million as compared to 2015. Gross loss for 2016 amounted to $81 million.

Gross profit from *seamless* pipe sales decreased by $73 million, gross loss from *welded* pipe sales decreased by $14 million. Unfavorable market environment resulted in lower sales volumes and weaker pricing. A drop in prices wasn't fully offset by a decrease in raw material prices. An increase in fixed cost resulted from lower sales volumes also negatively affected our gross profit. As a result we recognized gross loss from both *seamless* and *welded* pipe sales.

Gross profit from other operations decreased by $4 million.

Europe. Gross profit in the European division decreased by $8 million as a negative effect of unfavorable pricing environment was not fully offset by lower raw material prices. Gross profit margin was 22% compared to 24% in 2015.

Net operating expenses

Net operating expenses were lower by $86 million or 17% primarily due to a negative currency translation effect and our cost-cutting program. The share of net operating expenses, expressed as a percentage of revenue, was almost flat at 13%.

Adjusted EBITDA

In 2016, adjusted EBITDA margin stayed almost flat at 16%.

	2016		**2015**		**Change**
	in million dollars	***in % to revenue***	***in million dollars***	***in % to revenue***	***in million dollars***
Russia	**578**	21%	643	20%	(66)
America	**(72)**	(20)%	(23)	(3)%	(50)
Europe	**24**	14%	30	15%	(6)
TOTAL ADJUSTED EBITDA	**530**	16%	651	16%	(121)

Russia. Adjusted EBITDA was lower by $66 million or 10% as a result of a decrease in gross profit, which was partially compensated by lower selling, general and administrative expenses and other operating expenses. Adjusted EBITDA margin was 21% compared to 20% in 2015.

America. Adjusted EBITDA was negative and amounted to minus $72 million. Adjusted EBITDA decreased by $50 million as compared to 2015 following a decline in gross profit, which was partially offset by lower selling, general and administrative expenses and other operating expenses.

Europe. Adjusted EBITDA decreased by $6 million as compared to 2015 following lower gross profit, partially offset by a decrease in selling, general and administrative and other operating expenses. Adjusted EBITDA margin amounted to 14% as compared to 15% in 2015.

Impairment of assets

We tested our assets for impairment during the year. As at December 31, 2016, we recognised the impairment loss of $3 million compared to $352 million loss in 2015.

Foreign exchange movements

In 2016, we recorded a foreign exchange gain in the amount of $130 million as compared to a $141 million loss in 2015. In addition, we recognised a foreign exchange gain from exchange rate fluctuations in the amount of $69 million (net of income tax) in 2016 as compared to a $184 million loss (net of income tax) in 2015 in the statement of other comprehensive income. The amount in the statement of comprehensive income represents the effective portion of foreign exchange gains or losses on our hedging instruments.

Net finance costs

Net finance costs decreased by $6 million or 2%. The weighted average nominal interest rate was 9.03% as of 31 December 2016 as compared to 9.06% as of 31 December 2015.

Cash flows

The following table illustrates our cash flows:

	2016	**2015**	**Change**
	in million dollars		***in million dollars***
Net cash provided by operating activities	**476**	684	(208)
Payments for property and equipment	**(175)**	(208)	33
Acquisition of subsidiaries	**0**	(2)	2
Other investments	**94**	25	69
Free Cash Flow	**395**	498	(103)
Change in loans	**(53)**	(193)	140
Interest paid	**(258)**	(274)	16
Other financial activities	**(74)**	128	(202)
Free Cash Flow to Equity	**10**	158	(149)
Dividends paid	**(33)**	(41)	8
Effect of exchange rate changes	**(5)**	(65)	60
Cash and cash equivalents at the beginning of period	**305**	253	52
Cash and cash equivalents at period end	**277**	305	(29)

Net cash flows provided by operating activities decreased by $208 million to $476 million from $684 million in 2015. In 2016, working capital increased by $13 million compared to a $105 million decrease in 2015.

Net repayment of borrowings totalled $53 million as compared to $193 million of net repayment in 2015.

Growth in other investments was a result of disposal of subsidiaries.

Positive cash flow from other financial activities in 2015 was caused by proceeds from sales of treasury shares.

Cash and cash equivalents at the end of the period amounted to $277 million as compared to $305 million at the end of 2015.

Indebtedness

Our overall financial debt increased from $2,776 million as of 31 December 2015 to $2,897 million as of 31 December 2016 influenced by the appreciation of the Rouble against the U.S. dollar. Net repayment of borrowings in 2016 was $53 million. Our net debt amounted to $2,539 million as compared to $2,471 million as of 31 December 2015.

As of 31 December 2016, our debt portfolio comprised diversified debt instruments, including bank loans, bonds and other credit facilities. As of 31 December 2016, the U.S. dollar-denominated portion of our debt represented 55%, Rouble-denominated portion of debt represented 43%, euro-denominated portion of debt represented 2% of our total debt.

The share of our short-term debt decreased to 9% as of 31 December 2016 compared to 21% as of 31 December 2015.

As of 31 December 2016, our debt portfolio comprised fixed and floating interest rate debt facilities. Borrowings with a floating interest rate represented $190 million or 7% of total debt, and borrowings with a fixed interest rate represented $2,667 million or 93% of our total debt.

As of 31 December of 2016, our weighted average nominal interest rate was 9.03%, which was a 3 basis point decrease compared to 31 December 2015.

Our most significant credit facilities as of 31 December 2016 were as follows:

Type of borrowing	Bank	Original currency	Outstanding principal amount	Maturity period
			in millions of U.S. dollars	
6.75% bonds		USD	500	April 2020
Loan	Gazprombank	USD	400	June 2021
Loan	Gazenergobank	RUR	280	September 2025
Loan	Sberbank of Russia	RUR	257	October 2019
7.75% bonds		USD	231	January 2018
Loan	Alfa Bank	USD	150	January 2019
Loan	Gazprombank	RUR	148	March 2019
Loan	Sberbank of Russia	RUR	141	August 2019
bonds		RUR	82	April 2019
Loan	Gazprombank	RUR	82	December 2017
			2,273	
Other credit facilities			571	
TOTAL LOANS AND BORROWINGS			**2,844**	

Development trends

In Russia, TMK believes Russian oil and gas companies planned oil production cuts won't substantially affect OCTG and line pipe demand in 2017, and seamless oil and gas pipe consumption will remain strong in 2017 with a moderate growth potential. Raw materials price hike might negatively affect results of the Russian division in 1Q 2017, which should be offset by further increase in pipe prices in 2Q 2017. TMK expects lower LDP consumption in 2017, due to completion or rescheduling of a number of major pipeline construction projects.

In the US, drilling activity, has been slowly increasing and should continue to do so during 2017. At year's end, there were 60% more rigs compared to June 2016. OCTG consumption is growing with inventory levels dropping. TMK believes the American division has passed the bottom of the crisis and is cautiously optimistic about the future. There are multiple signs that give the Company renewed confidence, including strengthening prices and longer booking horizons.

In Europe, TMK expects pipe prices to recover and product mix to improve in 2017, which should positively impact financial results of the European division.

Overall, TMK anticipates stronger financial results for FY 2017 supported by improved performance of the American division, and the EBITDA margin to remain nearly flat compared to FY 2016.

Selected financial data

Adjusted EBITDA

Reconciliation of income before tax to Adjusted EBITDA for the twelve months ended:

	31 December 2016	30 September 2016	30 June 2016	31 March 2016	31 December 2015
			in million dollars		
Income before tax	**169**	(353)	(467)	(472)	(443)
Depreciation and amortisation	**242**	236	237	247	251
Finance costs, net	**263**	269	266	267	269
Impairment of assets/(Reversal of impairment of assets)	**3**	352	352	352	352
Loss/(gain) on changes in fair value of derivative financial instrument	**(9)**	20	37	20	2
Foreign exchange (gain)/loss, net	**(130)**	(47)	58	68	141
Loss/(gain) on disposal of property, plant and equipment	**(3)**	(5)	0	12	11
Movement in allowances and provisions (except for provisions for bonuses)	**11**	55	62	78	54
Other non-operating income/(expenses)	**13**	13	14	15	15
Other non-cash items	**(29)**	8	0	0	0
Adjusted EBITDA	**530**	548	557	586	651

Adjusted EBITDA is not a measure of our operating performance under IFRS and should not be considered as an alternative to gross profit, net profit or any other performance measures derived in accordance with IFRS or as an alternative to cash flow from operating activities or as a measure of our liquidity. In particular, Adjusted EBITDA should not be considered to be a measure of discretionary cash available to invest in our growth. Adjusted EBITDA has limitations as an analytical tool, and potential investors should not consider it in isolation, or as a substitute for analysis of our operating results as reported under IFRS.

The following limitations of Adjusted EBITDA as an analytical tool should be considered:

• Adjusted EBITDA does not reflect the impact of financing or finance costs on our operating performance, which can be significant and could further increase if we were to incur more debt;

• Adjusted EBITDA does not reflect the impact of income taxes on our operating performance;

• Adjusted EBITDA does not reflect the impact of depreciation and amortisation on our operating performance. The assets that are being depreciated and/or amortised will have to be replaced in the future and such depreciation and amortisation expense may approximate the cost to replace these assets in the future. By excluding this expense from Adjusted EBITDA, it does not reflect our future cash requirements for these replacements; and

• Adjusted EBITDA does not reflect the impact of other non-cash items on our operating performance, such as foreign exchange (gain)/loss, impairment/(reversal of impairment) of non-current assets, movements in allowances and provisions, (gain)/loss on disposal of property, plant and equipment, (gain)/loss on changes in fair value of financial instruments, share of (profit)/loss of associate and other non-cash items.

In the 3 month period ended September 30, 2016, the management changed the definition of Adjusted EBITDA in order to eliminate the impact of certain items that are not accompanying the core operating activities of the Group's segments and are not indicative of their performance, and to enhance the comparability of the performance measure to other companies within the industry.

Net Debt

Net debt has been calculated as of the dates indicated:

	31 December 2016	30 September 2016	30 June 2016	31 March 2016	31 December 2015
			in million dollars		
Loans and borrowings less interest payable	**2,836**	2 814	2 764	2 767	2 730
Liability under finance lease	**61**	64	44	46	46
TOTAL DEBT	**2,897**	2 878	2 808	2 813	2 776
Net of:					
Cash and short-term financial investments	**(357)**	(291)	(332)	(230)	(305)
NET DEBT	**2,539**	2 587	2 476	2 582	2 471
NET DEBT TO EBITDA (LTM[1])	4.79	4.73	4.44	4.40	3.80

Net Debt is not a measure under IFRS, and it should not be considered to be an alternative to other measures of financial position. Other companies in the pipe industry may calculate Net Debt differently and therefore comparability may be limited. Net Debt is a measure of our operating performance that is not required by, or presented in accordance with, IFRS. Although Net Debt is a non IFRS measure, it is widely used to assess liquidity and the adequacy of a company's financial structure. Management believes Net Debt provides an accurate indicator of our ability to meet our financial obligations, represented by gross debt, from available cash. Net Debt demonstrates investors the trend in our net financial position over the periods presented.

[1] Net Debt-to-EBITDA ratio is defined as the quotient of Net Debt at the end of the given reporting date divided by the Adjusted EBITDA for the 12 months immediately preceding the given reporting date. Adjusted EBITDA – see "Selected financial data".

Principal risks and uncertainties

Industry risks

Dependence on the oil and gas industry

The oil and gas industry is the principal consumer of steel pipe products worldwide and accounts for most of our sales, in particular sales of OCTG, line pipe and large-diameter pipe. In 2016, sales volumes of pipes used in oil and gas industry accounted for approximately 78% of our tubular products.

The oil and gas industry has historically been volatile and downturns in the oil and gas markets can adversely affect demand for our products, which largely depends on the number of oil and gas wells being drilled, completed and reworked, the depth and drilling conditions of wells and the construction of oil and gas pipelines. The level of such industry specific activities in turn depends on the level of capital spending by major oil and gas companies. The level of investment activities of oil and gas companies, which is largely driven by prevailing prices for oil and natural gas and their stability, significantly affects the level of consumption of our products.

A decline in oil and gas exploration, drilling and production activities in Russia, the U.S., and more globally (including as a result of the volatility of oil and natural gas prices), adversely affects our results of operations. In this regard, recently there has been a significant decline in crude oil prices and gas prices. In 2014 and 2015, oil prices decreased by more than three times from U.S.$112.36 per barrel of Brent crude oil on 30 June 2014 to U.S.$37.28 per barrel on 31 December 2015. At the beginning of 2016, the Brent crude oil prices continued to decrease reaching U.S.$25.99 per barrel on 20 January 2016 but subsequently increased to U.S.$54.99 per barrel on 23 January 2017. Such volatility in oil prices has resulted in a decrease in capital expenditure on oil drilling, exploration and production activities by oil companies, particularly in North America. This decrease in capital expenditure by oil companies has put pressure on our revenues and profit margins. In 2014 and 2015, natural gas prices also exhibited a downward trend decreasing by more than 50% from U.S.$4.75 per million Btu as at June 2014 to below U.S.$2.13 per million Btu as at December 2015. In 2016, natural gas prices continued to decrease reaching U.S.$1.57 per million Btu on 1 March 2016 but subsequently increased to U.S.$3.18 per million Btu on 23 January 2017. As a consequence, in the period of 2014 to 2016, we continued to face pricing pressure on our products, particularly in the United States.

Thus, the decline in oil and gas exploration, drilling and production activities, prices for energy commodities and other economic factors beyond our control could adversely affect our results of operations.

Increases in the cost of raw materials

We require substantial quantities of raw materials to produce steel pipes. The principal raw materials used in production processes include scrap and ferroalloys for use in steelmaking operations, steel billets used for the production of seamless pipe and steel coils and plates for the production of welded pipe. The demand for the principal raw materials we utilize is generally correlated with macroeconomic fluctuations, which in turn are affected by global economic conditions.

Prices for raw materials and supplies have a key influence on our production costs and are one of the main factors affecting our results of operations. There are many factors which influence raw materials prices, including oil and gas prices, worldwide production capacity, capacity utilization rates, inflation, exchange rates, trade barriers and developments in steelmaking processes. In 2016, the cost of scrap metal in Russia in Rouble-terms increased on average by 7%, and the cost of coils increased by 17%. At the same time, we are negotiating new contract terms with our major clients based on pricing formulas, which secure us against growing raw materials prices. The share of raw materials' and consumables' costs in the total cost of production in 2016 was 60%. The increase in prices for scrap, coils and other raw materials, if not passed to customers can adversely affect our profit margins and results of operations.

Our plants also consume significant quantities of energy, particularly electricity and gas. In 2016, energy and utility costs comprised approximately 9% of our total cost of production. The prices for electricity for our plants increased by 6% in Rouble-terms compared to 2015, while the average prices for domestic natural gas for our plants increased by 2% in Rouble-terms. If we are required to pay higher prices for gas and electricity in the future, our costs will rise and this could have a material adverse effect on our business, financial condition, results of operations and prospects.

Dependence on a small group of customers

As we focus on supplying primarily the oil and gas industry, our largest customers are oil and gas companies. In 2016, our five largest customers were Rosneft, Gazprom, Surgutneftegas, Gazprom Neft and Lukoil, which together accounted for 39% of our total sales volumes. The increased dependence of pipe sales on a single large customer bears the risk of an adverse effect on results of operations in the event that our relationship with any of these major customers deteriorates.

Our LDP business is largely dependent on one of our largest customers, Gazprom. In 2016, 47% of our LDP were sold for Gazprom projects. Increased competition in the supply of LDP or a change in relationships with Gazprom could negatively affect our competitive position in the large-diameter pipe market, resulting in decreased revenues from sales of these products and adversely affecting our business, financial position and results of operations. Additionally, large-diameter pipe business depends significantly upon the level of construction of new oil and gas pipelines in Russia and the CIS. The delay, cancellation or other changes in the scale or scope of significant pipeline projects, or the selection by the sponsors of such projects of other suppliers could have an adverse effect on our sales of LDP, and thus on the results of operations and financial position.

Competition

The global market for steel pipe products, particularly in the oil and gas sector, is highly competitive. In the Russian and CIS markets, we face competition primarily from ChTPZ, OMK, and the Ukrainian and Chinese pipe producers.

After accession to the WTO Russia had adjusted its national legislation in full accordance with WTO rules and regulations, what allowed Russia along with the EEU (Eurasian Economic Union) to use WTO trade defense mechanism for the national market protection. To date, the following antidumping measures are effective in EEU: antidumping duties in the amount 18.9%-19.9% on imports of Interpipe (Ukraine) pipe production that were extended till 2021, anti-dumping duties ranging from 4.32% to 18.96% on imports of seamless stainless steel cold- and hot- rolled tubes and pipes originating from Ukraine, antidumping duties in the amount 19.15% on imports of cold-drawn stainless steel pipes originated from China, antidumping duties 12.23%-31% in respect to OGTG originated from China.

Outside Russia and the CIS, we compete against a limited number of premium-quality pipe products producers, including Tenaris, Vallourec, Sumitomo, Voestalpine and Chinese producers.

In the United States according to the DOC's findings in August 2014 antidumping duties were imposed at the following levels in respect Oil Country Tubular Goods: India 2.05%-9.91%; Turkey 35.86%; South Korea 3.98%-6.495%, Taiwan 2.34%, Vietnam 25.18%-111.47%, the countervailing duties were 5.67%-19.57% for India and 2.39% for Turkey. The highest anti-dumping and countervailing duties were set in relation to OCTG originating from China that were 31.99%-137.62% and 12.26%-15.87% respectively

In October 2015, the anti-dumping and countervailing duties, in respect of welded API line pipe from South Korea and Turkey the final antidumping and countervailing duties were set at the following level: for Turkey 6.66%-22.95%, for Korea 2.53%-6.23%, the final countervailing duties for Turkey were set at level of 1.31%-152.20%, for Korea 0.28%-0.44% the Department of Commerce reached a negative determination in the countervailing duty investigation and therefore countervailing duties were not imposed .

Decisions and determinations subsequent to results of the investigations mentioned above are expected to ensure the alignment of conditions of the competition in the market of pipe products in Russia and America in 2016 and contribute to the improvement of market positions of Russian and American plants.

We may not be able to compete effectively against existing or potential producers and preserve our current share of the various geographical or product markets in which we operate. A failure to compete effectively in one or more of these markets could have a material adverse effect on our business, financial condition, results of operations and prospects.

Financial risks

Liquidity risk

Liquidity risk is the risk that TMK will not be able to meet its financial obligations as they fall due. TMK's approach to managing liquidity is to ensure that it will always have sufficient liquidity assets to meet its obligations when due.

TMK manages liquidity risk by maintaining adequate cash reserves and borrowing facilities, by continuously monitoring forecast and actual cash flows and matching the maturity profiles of financial assets and liabilities.

As of December 31, 2016, our total debt increased to $2,897 million as compared to $2,776 million at the end of 2015, due to the Rouble depreciation against the U.S. dollar. Net repayment amounted to $53 million. As of December 31, 2016, our Net-Debt-to-EBITDA ratio was 4.75x.

Improving liquidity profile remains one of our priorities, and we continue to carry out measures to maintain sufficient liquidity and improve loan portfolio structure. TMK maintains credit lines and other financial resources that can be incurred to meet short and long terms needs and for refinancing purposes. . As of 31 December 2016, we committed credit lines in Russian, European and American banks with the available limit of $723.7 million.

Nevertheless, there can be no assurance that our efforts to improve liquidity profile and reduce leverage will prove successful. The negative debt market reaction on deteriorating global political and financial situation, US and EU sanctions, economic situation in Russia may have an adverse impact on our ability to borrow in banks or capital markets, and may put pressure on our liquidity, significantly increase borrowing costs, temporary reduce the availability of credit lines or lead to and possibility to incur financing on acceptable terms.

Compliance with covenants

Certain amount of our loan agreements and public debt securities currently include financial covenants. Some covenants impose financial ratios that must be maintained, others impose restrictions in respect of certain transactions, including restrictions in respect of indebtedness, pledging of assets and material asset disposals. A breach of financial or other covenants in existing debt facilities, if not resolved by means such as obtaining a waiver from the relevant lender and/or making amendments to debt facilities, could trigger a default under our obligations.

As of 31 December 2016, we were in compliance with lenders' requirements under covenants.

Nevertheless, in case financial markets or economic situation on the markets, where we operate, deteriorate in the future, we may not comply with relevant covenants. In case of possible breach we will apply best efforts to obtain all necessary waivers or standstill letters. We do not expect the occurrence of such events in the near future.

Interest rate risk

Some of our loans and borrowings are subject to variable rates of interest. Accordingly, we remain subject to interest rate risk resulting from fluctuations in the relevant reference rates for such debt. Some loan agreements contain a right of creditors at its sole discretion to change interest rates including in case of change of credit indicators by the Central Bank of Russia and in some other cases.

The increase in such interest rates will result in an increase in our interest expense and could have a material adverse effect on our financial condition, results of operations or prospects.

Currency risk

Our products' prices as well as our costs are nominated both in Roubles and in other currencies (generally, in U.S. dollars and euro).We hedge our net investment in operations located in the United States and Oman against foreign currency risks using U.S. dollar denominated liabilities. Gains or losses on the hedging instruments relating to the effective portion of the hedge are recognised as other comprehensive income while any gains or losses relating to the ineffective portion are recognised in the income statement. In 2016, we incurred foreign exchange gain from spot rate changes in the total amount of $217 million, including $130 million recognised in the income statement and $87 million (before income tax) recognised in the statement of comprehensive income.

Also TMK is exposed to currency risk on the borrowings that are denominated in currencies other than the functional currencies of the respective TMK's members. The currencies in which these transactions are denominated are primarily Rubles, US dollars and euro. As of December 31, 2016, 55% of our loans were denominated in U.S. dollar. In this regards, as well as taking into consideration continuing volatility of the Rouble against U.S. dollar, the risk of losses owing to the Rouble devaluation remains sufficiently high. Depreciation of the Rouble against the U.S. dollar could adversely affect our net profit as coherent losses will be reflected in our consolidated income statements. Nevertheless, TMK is partly secured from currency risks as foreign currency denominated sales occasionally are used to cover repayment of foreign currency denominated borrowings.

Inflation risk

A significant amount of our production activities are located in Russia, and a majority of direct costs are incurred in Roubles. We tend to experience inflation-driven increases in certain costs, such as raw material costs, transportation costs, energy costs and salaries that are linked to the general price level in Russia. In 2016, inflation in Russia reached 5.4% as compared to 12.9% in 2015. In spite of the measures of the Russian government to contain inflation, growth of inflation rates may be significant in the short-term outlook. We may not be able to increase the prices sufficiently in order to preserve existing operating margins.

Inflation rates in the United States, with respect to our American division operations, are historically much lower than in Russia. In 2016, inflation in the United States increased to 2.1% in comparison to 0.73% in 2015.

High rates of inflation, especially in Russia, could increase our costs, decrease our operating margins and adversely affect our business and financial position.

Legal risks

Changes in tax legislation and tax system

Our subsidiaries make significant tax and non-budgetary funds payments, in particular, profit tax, VAT, property tax and payments to social security funds. Changes in tax legislation could lead to an increase in tax payments and, consequently, to a lowering of financial results. As significant part of the operations is located in Russia, the main risks relate to changes in the legislation of the Russian tax system. The Russian Government continually reviews the Russian tax legislation. The new laws generally reduce the number of taxes and the overall tax burden on business while simplifying tax legislation. Nevertheless, should the Russian taxation system suffer any changes related to increasing of tax rates, this could adversely affect our business.

Moreover, the Russian oil industry is subject to substantial taxes, including significant resources production taxes and significant export customs duties. Changes to the tax regime and customs duties rates may adversely affect the level of oil and gas exploration and development in Russia, which can adversely affect the demand for our products in Russia.

Changes in environmental law

We meet the requirements of national environmental laws at our industrial capacities location areas: the directives and regulations of Russian, the United States, the European Union, Romanian, Kazakhstan and Omani legislation.

The main ecological-and-economical risks of our Russian plants are related to changes and tightening of the Russian environmental protection laws. Environmental legislation in Russia is constantly developing. The imposition of a new law and regulation system may require further expenditures to install new technological and waste disposal equipment, pollution and wastewater control equipment, as well as will lead to growth of the rate of payments for negative impact on the environment. It is expected that compliance with the regulations will be accompanied by stricter control by state monitoring authorities.

We estimate that the environmental legislation of the European Union and the United States, Romania, Kazakhstan and Oman will not undergo any material changes in the near future. Nevertheless, if such changes arise, the cost of compliance with new requirements could have a material adverse effect on our business.

Other risks

Equipment failures or production curtailments or shutdowns

Our production capacities are subject to equipment failures and to the risk of catastrophic loss due to unanticipated events, such as fires, explosions and adverse weather conditions. Our manufacturing processes depend on critical pieces of steel-making and pipe-making equipment. Such equipment may, on occasion, be out of service as a result of unanticipated failures, which could require us to close part or all of the relevant production facility or cause us to reduce production on one or more of our production lines. Any interruption in production capability may require us to make significant and unanticipated capital expenditures to effect repairs, which could have a negative effect on our profitability and cash flows. Any recoveries under insurance coverage that we may obtain may not offset the lost revenues or increased costs resulting from a disruption of our operations. A sustained disruption to our business could also result in delays to or cancellations of customer orders and contractual penalties, which may also negatively impact our reputation among our customers. Any or all of these occurrences could have a material adverse effect on our business, results of operations, financial condition and prospects.

Insurance against all potential risks and losses

We maintain insurance against losses that may arise in case of property damage including business interruption insurance, accidents, transportation of goods. We also maintain corporate product liability and directors and officers liability insurance policies.

We maintain obligatory insurance policies required by law and provide employees with medical insurance as part of our compensation arrangements with our employees.

Nevertheless, we do not carry insurance against all potential risks and losses, and our insurance might be inadequate to cover all of our losses or liabilities or may not be available on commercially reasonable terms.

Ability to effect staff alterations and shortages of skilled labor

Our Russian subsidiaries are in many regions the largest employers in the cities in which they operate, such as Volzhsky, Taganrog, Kamensk-Uralsky and Polevskoy. While we do not have any specific legal social obligations or responsibilities with respect to these regions, the ability to effect alterations in the number our employees may nevertheless be subject to political and social considerations. Any inability to make planned reductions in the number of employees or other changes to operations in such regions could have an adverse effect on the results of operations and prospects.

Competition for skilled labor in the steel pipe industry remains relatively intense, and labor costs continue to increase moderately, particularly in the CIS, Eastern Europe and the United States. We expect the demand and, hence, costs for skilled engineers and operators will continue to increase, reflecting the significant demand from other metallurgical companies and other industries. Continual high demand for skilled labor and continued increases in labor costs could have a material adverse effect on our business, financial position and results of operations.

Responsibility statement

We confirm to the best of our knowledge that:

1. the consolidated financial statements prepared in accordance with International Financial Reporting Standards and presented together with this Management Discussion and Analysis of financial condition and results of operation give a true and fair view of the assets, liabilities, financial position and profit or loss of PAO “TMK” and its consolidated subsidiaries, taken as a whole; and

2. the Management Discussion and Analysis includes a fair review of the development and performance of the business and the position of PAO “TMK” and its consolidated subsidiaries, taken as a whole.

Alexander G. Shiryaev
Chief Executive Officer, PAO “TMK”

Tigran I. Petrosyan
Chief Financial Officer, PAO “TMK”

13 March 2017