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ADMINISTRATIVE METHODS OF IMPORT SUBSTITUTION MANAGEMENT OF DEFICIENT TYPES OF MINERAL RAW MATERIALS

Vitaly Y. KHATKOV¹, Grigory Y. BOYARKO²

¹ PJSC «Gazprom», Saint-Petersburg, Russia

² Tomsk Polytechnic University, Tomsk, Russia

Import dependence of Russian consumers on certain types of mineral products: aluminum, manganese and chrome raw materials, titanium, zircon and tin concentrates, ferroniobium, fluorspar and others – increases the stability of many industries. The state regulation of import substitution is very effective, but only in the form of indirect (coordination, maintenance, promotion, supervision and control), and not direct methods.

The following are used as tools for the administrative management of import substitution: the establishment of legal norms for the implementation of import substitution actions; coordination of actions of authorities and industry on import substitution; state control of railway transportation rates; limited government control over the pricing of import-dependent mineral products and services associated with them; financing of import substitution projects.

In order to reduce import dependence, the following is proposed: to lower the charges for railway transportation of import-dependent mineral products sent for the needs of Russian consumers, primarily for oncoming import-export goods (boric acid, borax, tungsten ores); to manage the pricing of export-oriented mineral products through a system of import and export customs duties, which prevent the excessive export of scarce mineral raw materials in demand within the Customs Union and stimulate its sales in the domestic market.

Key words: mineral products; import dependence; administration; import substitution; tariff regulation; customs regulation

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Introduction. Enterprises of the Russian Federation are forced to import significant volumes of many strategic types of commercial mineral products – aluminum, manganese and chrome raw materials, titanium, zirconium and tin concentrates, ferroniobium, fluorspar, bentonite and other materials [2, 5, 8, 12]. Annual imports of scarce mineral resources amount to 11.7 million tons for an amount of up to 4.6 billion USA dollars. The share of import-dependent mineral products in the imports of mineral raw materials is up to 46 % [10].

This dependence reduces the level of economic security of Russian enterprises that are sensitive to the dynamics of raw material supply, which, in turn, increases political risks within the Russian Federation [5, 8, 12].

Formulation of the problem. The problem of import-dependent industries requires close investigation of reasons of this dependence, including the optimization of management of commodity flows of scarce raw materials and the search for the possibility of domestic substitutes.

The issues of economic security and reduction of import dependence on raw mineral products are relevant for all industrialized countries [13, 14, 16, 19]. In Russia, these issues are considered both at the level of enterprise-producers and consumers of mineral products, and at the level of executive and legislative power [4, 5, 8, 12, 15, 17, 18]. One of the ways to manage the import substitution of scarce mineral raw materials is to manage the system of their production and consumption.

Research methods. Issues of administrative management are solved primarily by legal methods, through the creation or development of legal documents regulating the actions of the state, society and production for specific purposes, in our case – import substitution. The legal documents are based on the reliability of the source information; therefore, we need to analyze



the available economic information on the state of commodity flows of scarce mineral raw materials. The economic analysis is carried out by collecting and processing statistical data on the extraction, processing, trade and consumption of mineral products, assessing the state of their mineral resource base, logistics and identifying the likely risks of negative scenarios for the supply of raw materials.

Government measures for managing commodity flows of import-dependent mineral raw materials. The administrative resources of the state are a serious tool for the indirect management of economic processes in the country. In the case of import dependence of industries, including from the state, the following actions are possible:

1. Establishment of legal norms for the implementation of domestic substitution.
2. Coordination of government and industry actions on import substitution.
3. State control of railway transportation tariffs.
4. Limited state price adjustment for import-dependent mineral products and relevant services.
5. Financing of import substitution projects.

Let us consider them in more detail.

1. Establishment of legal norms for the implementation of domestic substitution. State bodies represented by the legislative and executive authorities determine the goals, objectives and rules for implementing the state policy in the field of import substitution from the standpoint of the interests of the state and society.

The economic stability of national industry is an integral part of the country's national security. The «Strategy of the National Security of the Russian Federation» (Decree of the President of the Russian Federation of December 31, 2015, N 683) mentions among external and internal threats a shortage of mineral resources.

Actions of subsoil users of mining industry on import substitution of minerals are within the framework in their responsibility for the reproduction of the mineral resource base in accordance with the Law of the Russian Federation «On Subsoil» (February 21, 1992, N 2395-I).

Among the most effective measures for regulating the import substitution of processing and consuming industries are the Federal Law «On the procurement of goods, works, services by certain types of legal entities» (N 223-FZ of July 18, 2011) on the priority of purchasing domestic goods in the so-called government procurement.

To develop the main directions of improving the legal regulation of import substitution and control over the implementation of measures in this area, in 2015 the Governmental Commission on Import Substitution (Government Resolution N 785 of August 4, 2015), and its work regulations were established (Approved by Government of the Russian Federation 01.28.2016, N 740p-P9). The government commission is considering proposals aimed at creating conditions for the effective implementation of state policy in the field of import substitution, long-term programs for the economic development of industries and territories with the conditions for the development of import-substituting technologies and industries

At the same time, there are hidden contradictions in relation to the mineral resource complex of Russia. First of all, it is considered as a tax donor of the budget, which is absolutely acceptable only to export-oriented highly liquid minerals with a large resource base (natural gas, oil, nickel, copper, platinum group metals, gold, silver, cobalt, coking coal, etc.). However, most minerals are for national consumption, and even a small level of additional mining taxes reduces the economic efficiency of the production of mineral materials from them. This is particularly important for commonly occurring minerals (sand, clay, limestone, peat, etc.) and import-dependent types, the extraction of which does not fully cover national consumption. They are less protected from most of the risks of extractive industries (geological risks of incorrectly proven reserves, social status of one-company towns, risks of pricing relatively cheap types of



mineral products, etc.). There are no special state acts to support the sectors of the production of mineral products oriented specifically to national consumption, considering the specifics of the mineral resource complex (increased tax burden, the presence of social burdens).

2. **Coordination of government and industry actions on import substitution.** State bodies, within their area of competence, coordinate the actions of the federal and municipal executive authorities with the participation of interested economic companies and organizations in planning import substitution measures.

For example, issues of import dependence of specific mineral products are raised in the subsoil use management system, including in the State reports «On the state and use of mineral resources of the Russian Federation in 2015» [1] prepared by the Federal Subsoil Use Management Agency of the Ministry of Natural Resources, mainly as a part of decisions on the reproduction of the mineral resource base.

The tasks of reproduction of mineral resources, including import-dependent ones, are set in the following documents:

- State policy in the field of the use of mineral raw materials and subsoil use (Order of the Government of the Russian Federation of 21.04.2003, N 494-r).
- Concept of long-term socio-economic development of the Russian Federation for the period up to 2020 (Order of the Government of the Russian Federation of 17.11.2008, N 1662-r).
- Long-term state program for the exploration and reproduction of the mineral resource base of Russia based on the balance of consumption and reproduction of mineral raw materials (Order of the Ministry of Natural Resources of Russia dated July 16, 2008, N 151).
- Development strategy of the geological industry for the period up to 2030 (Order of the Government of the Russian Federation of June 21, 2010, N 1039-r).
- State program of the Russian Federation «Reproduction and use of natural resources» (Decree of the Government of the Russian Federation dated April 15, 2014, N 322).
- Plan of activities of the Ministry of Natural Resources and Environment of the Russian Federation for 2016-2021 (Approved by the Minister of the Ministry of Natural Resources of the Russian Federation on 12.04.2017, N 0096/10).
- Development strategy of the mineral resource base of the Russian Federation until 2030. Project (version of September 12, 2016) [9].

The planning of import substitution activities in the processing and consuming industries, in which there is a major consumption of imported mineral products, is carried out in accordance with the following advisory coordination documents:

- The state program of the Russian Federation «The development of industry and improving its competitiveness» (Decree of the Government of the Russian Federation of April 15, 2014, N 328).
- Development strategies for ferrous and non-ferrous metallurgy in Russia for 2014-2020 and for the future period until 2030 (Approved by Order of the Ministry of Industry and Trade of Russia dated 05.05.2014, N 839).
- Plans for import substitution in the branches of ferrous and non-ferrous metallurgy of the Russian Federation (Approved by the Order of the Ministry of Industry and Trade of Russia dated March 31, 2015, N 652).
- The plan of measures for import substitution in the chemical industry of the Russian Federation (Approved by the Order of the Ministry of Industry and Trade of the Russian Federation dated January 29, 2016, N 197).

These documents include the selection of enterprises participating in import substitution projects, the definition of incentives and state support, and monitoring the implementation of these plans (Table 1).



Table 1

**Measures for import substitution in the ferrous and non-ferrous metallurgy, chemical industry
(according to the Orders of the Ministry of Industry and Trade of Russia, see above)**

Technology (product, technology)	Project implementation period, year	Import share in consumption in (baseline) 2014, %	Maximum planned share of imports in consumption by 2020, %
Ferromanganese, ferrosilicomanganese and EMM (electrolytic metallic manganese)	2015-2019	35	25
Tin ores and concentrates	2015-2020	80	20
Titanium ores and concentrates	2015-2020	95	50
Tin	2015-2020	70	30
Beryllium	2015-2020	80	5
Rare earth products (metals, alloys, oxides)	2015-2020	100	5
Rhenium	2018-2025	80	70
Petroleum coke	2017-2019	20	2
Low alkaline alumina with a high α -phase content	2015-2017	100	5
Production of natural flake graphite of infusible type	2015-2018	60	50
Titanium dioxide pigment	2015-2018	95,4	5
Synthetic magnesium hydroxide	2015	100	10
Synthetic magnesium oxide	2015	95	10
CCM- magnesite (caustic calcined magnesite)	2016-2018	95	10
Thermal phosphoric acid	2015-2020	100	10
Technical Sodium Sulfur	2016	93,8	40
Iodine	2013-2019	95,5	40
Caustic potash flake	2007-2017	45,3	25
Ammonium Polyphosphate	2018-2021	100	25
Sodium Metallic	2017-2018	100	50

It can be seen, in addition to large-tonnage products there are low-tonnage types of raw materials (beryllium, iodine, etc.), some varieties of mineral products with special properties (low-alkaline alumina with a high α -phase content, caustic potassium flake, etc.) and production technologies of targeted products (refractories from periclase and graphite). Import substitution can also be in the form of incidental legal actions. For example, as a result of counter-sanctions, the list of the banned imported food products (Presidential Decree N 560 of August 6, 2014) included cooking salt, an import-dependent product, and its imports began to decline.

In general, the coordination of import substitution by government agencies is conducted indirectly, in the form of guidelines. Import-dependent mineral products are only special cases of domestic substitution objects.

3. State control of railway transportation tariffs. The Federal Antimonopoly Service (FAS) of Russia regulates *domestic prices for goods and services of natural monopolies* (natural gas, heat and electricity, rail tariffs and pipeline transportation of natural gas, oil and oil products).

Due to the large distances between production places and consumers of most mineral products the share of the cost of the transport component in the final product sometimes amounts to more than 30 % (primarily for cheap types of raw materials). Therefore, for import-dependent mineral



products there is a problem of transport logistics for Far Eastern miners, when it is more profitable to sell it abroad in Asian markets, while consumers of European Russia are forced to import the same raw materials (boric acid, borax, tungsten and zinc ores, etc.) [11]. However, in the case of domestic rail transportation, some import-dependent mineral products have higher tariff rates compared to the average cost of transporting all goods.

For railway companies' tariffs for the movement of goods have adjustment charges depending on the distance (from 0.75 for transportation up to 1200 km, 0.55 for transportation over 5000 km), the class of cargo (1.0-1.75) and type of commercial product (0.4-2.516) [7]. Besides, additional adjustment charges create tariff preferences for certain types of goods. For example, coal has an adjustment charge of 0.4 for transportation over 3,500 km. As a result, the profitability of coal transportation is 1.6 times lower than the average profitability of transportation by Russian Railways [6]. Even larger discounts are available for transportation of potassium chloride (with a distance of 3501-5700 km – adjustment charge 0.139 for a distance of more than 3500 km), methyl alcohol (with a distance of 2101-2800 km – adjustment charge 0.1 for a distance of more than 1,450 km).

Other components of tariffs for rail transportation of goods (for the type of shipment, for the type of rolling stock used, for the use of the infrastructure and locomotives of Russian Railways) are formed equally for all types of cargo. Table 2 presents the values of adjustment charges for individual import-dependent mineral products and a generalized adjustment charge for them for an example of transportation per 6000 km. It can be seen, only some import-dependent mineral products (petroleum coke, alumina, fluorspar, barite, bentonite, feldspar, fire-clay, manganese and chromium ores) fall under the tariff preferences. At the same time, import-dependent ores of non-ferrous metals and especially tungsten concentrate have a higher tariff rate for the carriage of goods by rail.

It is necessary to lower the tariff adjustment charges for the railway transportation of goods for import-dependent types of mineral products sent to Russian consumers, primarily for counter-import-export goods (boric acid, borax, tungsten ores).

4. Limited state price adjustment for import-dependent mineral products and relevant services. The state exercises full control over the pricing of natural monopolies, partial (advisory) control of the prices of essential commodity, as well as fiscal control of transfer prices for export goods (including mineral products) in order to avoid tax evasion.

The goal of state control over *domestic prices for essential commodity* (basic foodstuffs, medicines) is to slow down the inflationary rise in their prices. Radical measures (administrative regulation and freezing of prices, setting their maximum level) are ineffective here. Recommended measures (regulation of the level of profitability, standards for determining prices, declaring prices) are more viable to implement. Some import-dependent mineral products such as sodium chloride (cooking salt), soda, and boric acid fall into the category of essential commodity. However, control of domestic retail prices has little effect on the wholesale market flows and this regulation does not significantly affect the volume of commodity flows.

Low transfer prices for mineral products in the 90s were used by many mining companies to avoid «excess» burden of taxation. A milestone event that changed the situation was the claims of state bodies in 2008 against OJSC «Mechel» for lowering export prices for iron ore, cast iron and steel more than 4 times as compared with domestic prices. Currently, this process is regulated by the Section V.1 of the Tax Code of the Russian Federation «Interdependent Persons and International Groups of Companies. General provisions on pricing and taxation. Tax control in connection with transactions between related parties. Pricing Agreement. Documentation of international groups of companies.» The list of controlled transactions includes domestic



Table 2

Adjustment charges for the calculation of tariffs for the transportation of goods of import-dependent mineral products according to the classes of cargo and type of product according to the uniform classes of transport rates (UCTR) [7]

Commodity	UCTR code	Cargo class	Adjustment charges			Total adjustment charge	
			By UCTR code		By cargo class	Main× ×for class	Main× ×for class× ×for distance of 6000 km
			Main	Additional			
Chromite concentrate	141177	1	0.95		1	0.95	0.523
Manganese concentrate	142038	1	0.95		1	0.95	0.523
Bauxite	151037	1	0.938		1	0.938	0.516
Alumina	151060	1	1.64	0.58**	1	1.64	0.45
Tungsten concentrate	151107	1	2.516		1	2.516	1.384
Ilmenite concentrate	151111	1	2.156		1	2.156	1.186
Molybdenum concentrate	151179	1	2.156		1	2.156	1.186
Tin concentrate	151200	1	2.156		1	2.156	1.186
Rutile concentrate	151215	1	2.156		1	2.156	1.186
Zinc concentrate	151253	1	2.156		1	2.156	1.186
Zircon concentrate	151268	1	2.156		1	2.156	1.186
Petroleum coke	222105	2	0.79		1	0.79	0.435
Mineral wax	224011	3	1.15		1.54	1.771	0.974
Bentonite	241229	1	0.77		1	0.77	0.424
Kaolin	241252	1	0.77		1	0.77	0.424
Graphite	241290	1	0.77		1	0.77	0.424
Feldspar	241515	1	0.77		1	0.77	0.424
Barite	242039	1	0.77		1	0.77	0.424
Fluorspar	242096	1	0.77		1	0.77	0.424
Fire-clay	301010	1	0.824		1	0.824	0.453
Metal manganese	313037	3	1.05	0.45***	1.74	1.827	0.935
Silica manganese	313056	3	1.05	0.45***	1.74	1.827	0.935
Ferro tungsten	313087	3	1.05	0.45***	1.74	1.827	0.935
Ferroniobium	313087	3	1.05	0.45***	1.74	1.827	0.935
Ferromolybdenum	313087	3	1.05	0.45***	1.74	1.827	0.935
Ferromanganese	313087	3	1.05	0.45***	1.74	1.827	0.935
Ferrochrome	313087	3	1.05	0.45***	1.74	1.827	0.935
Tin metal	331340	3	1.567		1.74	2.727	1.5
Titanium dioxide	466035	3	1.05		1.54	1.617	0.889
Boric acid	481177	3	0.81		1.74	1.409	0.775
Rare earth materials	481482	3	0.81		1.74	1.409	0.775
Borax	483825	3	0.81		1.74	1.409	0.775
Sodium chloride (rock salt)	531060	3	0.91		1	0.91	0.501

Notes: * 1st class of cargo – bulk goods with a share of the transport component of more than 15 % in the value of final products; 2nd class – with a share of 8-15 %; 3rd class – with a share of less than 8 %; ** additional charge for a distance of more than 1500 km; *** additional charge for a distance of more than 5000 km.

transactions with interdependent persons with a turnover of more than 2 billion rubles per year, with foreign related parties and with a turnover of more than 60 million rubles per year in which one of the parties is a mineral extraction tax payer (supplier of mineral raw materials). In case of lowering the transfer prices as compared with the average Russian, tax sanctions are applied to violators.

Generally, control over transfer prices can impede the export of certain import-dependent mineral products that have reciprocal import and export flows with a clear undervaluation of export prices (at present, molybdenum and ilmenite concentrates). However, other mineral products of counter-import-export flows with equal and high export prices are not prevented by this measure of state control of transfer prices.

It makes sense to create a system for controlling the pricing of import-export mineral products through a system of import and export customs duties that prevent the excessive export of scarce mineral raw materials that are in demand within the Customs Union and stimulate its sales in the domestic market.

5. Financing of import substitution projects. On the part of the state, direct participation in the financing of commercial projects is traditionally ineffective. Therefore, they use schemes for indirect financing of import substitution projects (tax preferences, infrastructure projects) and direct financing of import-substituting activities (public-private partnerships, government targeted programs).

Tax preferences can be expressed in the form of tax benefits to certain categories of tax and tax payers if there are grounds for applying them. For example, in the extraction of conditioned ores of tin (import-dependent commercial product) in the Far Eastern Federal District, the extraction tax in the period from 01/01/2013 to 12/31/2022 is charged at a rate of 0 % (Tax Code of the Russian Federation, art. 342 section 1, sub-section 17).

Infrastructure projects are investment projects focused on the development of not individual enterprises and industries, but on the provision of transport logistics and energy sources of industrial territories that are active and promising for development.

Currently, they implement infrastructure projects including the construction of roads and railways, power generating facilities and power transmission lines (Federal Law N 39-FZ dated February 25, 1999, Resolution of the Government of the Russian Federation of August 18, 2007, N 1082-r):

- Creation of transport infrastructure for the development of mineral resources of the southeast of the Chita region (now Trans-Baikal region).
- Integrated development of the Lower Angara region.
- Construction of the railway line Kyzyl-Kuragino together with the development of the mineral resource base of the Republic of Tyva.

In addition, they work on new investment programs for the development of the territories (Order of the Government of the Russian Federation of 17.06.2008, N 877-r):

- Ural Industrial – Ural Polar.
- Complex development of South Yakutia.

State programs of geological (geophysical, geochemical) study of territories that create the geological basis for the search, evaluation and exploration of new mineral deposits can also be attributed to the projects.

Public-private partnership is implemented in the form of joint participation in the investment process of private companies and public sources of financing (Federal Law N 39-ФЗ of February 25, 1999). For example:

- PJSC «Russky Aluminiiy» in the investment project «Integrated Development of the Lower Angara Region»;

- PJSC «Norilsky Nickel» in the project «Development of mineral resources of the southeast of the Chita region (now Trans-Baikal region)»;
- JSC «Lukoil» in the project «Caspian Gas Chemical Complex in the Stavropol region»;
- PJSC «Tatneft» in the project «Oil Refining and Petrochemical Complex in Nizhnekamsk (Republic of Tatarstan)».

There are also new forms of investment. On the basis of the public procurement contract system, special investment contracts (SIC) are carried out for individual industries, including in industrial clusters and for the purposes of import substitution (Order of the President of the RF dated January 28, 2016, N 41). As preferences for the SIC, it should be noted simplified access to government orders and to industry support measures (subsidiary and regulatory), the possibility of tax cuts (up to 0 % for income, property, land, etc. depending on regional and municipal legislation), permitting accelerated depreciation procedures for fixed assets and other incentive measures (leasing land without bidding, infrastructure obligations, etc.). The examples of the SIC are the following projects:

- Mining and Processing Plant for the extraction and enrichment of potash salts at the Gremyachinskoe deposit in the Volgograd region (LLC «EvroKhim-VolgaKaliy»);
- Creation of industrial production «Usolsky kaliyny kombinat» in the Perm region (LLC «EvroKhim-UKK»).

State targeted programs include highly specialized works on the reproduction of mineral resources, investment projects for particularly important public needs (mainly for defense purposes). In terms of import substitution of scarce mineral products from the state, individual prospecting and evaluation works are financed. In exceptional cases, exploration projects are funded too.

Discussion on import substitution of scarce mineral products. In the 90s in the journal «Mineral Resources of Russia. Economics and Management» published a series of articles on the import dependence of Russian enterprises for manganese raw materials (Tigunov L.P., 1994, N 4), alumina (Radko V.V., 1996, N 4), and titanium raw materials (Bykhovskiy L.Z., 1995, N 5), ferromanganese (Elyutin M.A., 1999, N 3), rare earths (Kudrin V.S., 1996, N 6), zircon concentrate (Bykhovskiy L.Z., 1996, N 1), chromites (Tigunov, L.P., 1994, N 6), barite (Akhmanov G.G., 1995, N 5), kaolin (Vasyanov, G.P., 1993, N 2), etc. The solution to this problem was proposed: state support of the existing (often crises) enterprises, the development of new extractive industries and the financing of state programs of new geological exploration. Such proposals are reflected in the works of E.A. Kozlovskiy, M.I. Shchadov, A.S. Astakhov, V.Zh. Arens [3, 5, 8] and others. The state simply didn't have enough funds to support unprofitable projects, establishment of new productions and financing of exploration of new fields, and this direction of import substitution simply didn't work.

At the same time, the actions of the mining companies to address the issues of providing raw materials at their own expense were sufficiently effective for the industries of aluminum production (PJSC «Rusal»), bentonite (LLC «Bentonit»), chromium, barite, etc. Therefore, the proposals for import substitution of mineral projects involved the ones with participation of working sustainable enterprises and real investors – on strategic raw materials (Bykhovskiy L.Z., Tigunov L.P., 2015, N 5), rare metals (Kremenetskiy A.A., 2011, N 5; Petrov I.M., 2015, N 1), titanium raw materials (Moshkovtsev G.A., 2016, N 5), manganese (Koloskova I.S., 2014, N 1), aluminum (Remizova L.I., 2005, N 4, 2006, N 1), tungsten (Aleksandrov P.V., 2012, N 2), molybdenum (Elsukova M.A., 2014, N 4), feldspar raw materials (Gusarova E.A., 2011, N 6), etc. In general, proposals for improving the administrative management of import substitution appear in the form of support for individual projects.



Conclusion. As a result of the analysis of currently used methods of administrative management of import substitution programs for deficient strategic types of mineral products, it has been determined that state regulation of import substitution is very effective, but only in the form of indirect (coordination, maintenance, promotion, supervision and control), and not direct methods.

Import-dependent mineral products are only special cases of import substitution, therefore, their allocation into a separate direction of import substitution is not relevant.

The following are used as tools for the administrative management of import substitution: the establishment of legal norms for the implementation of import substitution actions; coordination of actions of authorities and industry on import substitution; state control of railway transportation rates; limited government control over the pricing of import-dependent mineral products and services associated with them; limited funding for import substitution projects.

Legal methods allow to quickly change the tools and conditions of administration, therefore, as specific measures to reduce import dependence, it is proposed:

- to reduce the additional charges for the railway transportations of cargoes for import-dependent mineral products sent for the needs of Russian consumers, primarily for counter-import-export goods (boric acid, borax, tungsten ores, etc.);
- to manage the pricing of export-oriented mineral products through the system of import and export customs duties, which prevent the excessive export of scarce mineral raw materials in demand within the Customs Union and stimulate its sales in the domestic market;
- to stimulate geological exploration for import-dependent types of minerals by guaranteeing investments and organizing a system to cover losses from unsuccessful projects at the expense of a portion of the extraction tax in the implementation of investor's projects that succeeded.

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Authors: **Vitaly Y. Khatkov**, Head of Department, V.Khatkov@adm.gazprom.ru (PJSC «Gazprom», Saint-Petersburg, Russia), **Grigory Y. Boyarko**, Doctor of Economics, Candidate of Geological and Mineral Sciences, Professor, gub@tpu.ru (Tomsk Polytechnic University, Tomsk, Russia).

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