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INNOVATIVE REVIVAL OF THE MINING AND METALLURGICAL COMPLEX OF UKRAINE AS THE IMPERATIVE OF NATIONAL COMPETITION POLICY

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Methods. The results are obtained with the following methods: analysis and synthesis in the identifying main actual problems of the Ukrainian mining and metallurgical complex (MMC) and in the studying the reasons for the gradual loss of its competitive advantages; structural analysis for research of the technological interactions of metallurgical and mining components of the MMC, statistical analysis, economic and mathematical modelling methods were applied in exploring the leading trends in the development of the national MMC and dynamics of its positions in global markets of ore metals and metal products.

Results. The main reasons for the negative tendencies in Ukrainian MMC development, for concomitant weakening of its international competitive advantages and the displacement of domestic exporters from the most dynamic high-tech segments of the world metal products market are identified and substantiated. It is empirically proven that despite the crisis situation, MMC is still the leading «driver» of the national industry and plays a crucial role in filling the income of the trade balance of Ukraine. The conceptual bases of the model of active state intervention in the processes of functioning and development of Ukrainian MMC are developed. Its strategic and tactical tasks, forms and instruments of implementation are discovered. The prerequisites for innovative renewal and technological modernization of MMC enterprises in the conditions of global competition are disclosed, in particular the mechanisms of their direct investment and budgetary state support are proposed. Taking into account the technological interactions (producer and consumer) of MMC constituents, the increase in domestic demand for metallurgical products a priori will become a powerful catalyst for the mining industry and will slow down inefficient and threatening for the future the export of depleting natural resources.

Novelty. There are proposed the measures aimed at revitalizing innovation and investment activity in the Ukrainian MMC with a focus on stimulation domestic demand for metal products within the framework of import-substitution policy. Recommendations were developed with bearing in mind the specifics of non-tariff neoprotectionism and the peculiarities of technological interactions between mining and metallurgical MMC's components.

Practical value. The obtained results will contribute to the improvement of the state industrial policy aimed at the development of Ukrainian mining and metallurgical complex, innovative strengthening of its international competitive advantages and overcoming the «resource curse» of the commodity economy.

Keywords: mining and metallurgical complex, world market, global competition, competitive advantages, competition policy, development strategy, export, innovation, import-substitution, protectionism.

Statement of problem. The mining and metallurgical complex (MMC) of Ukraine has been acting as the primary national economy driver of the development for the past two decades, providing the lion's share of exports and foreign exchange earnings. Precisely this complex came forward as the leading «growth pole» in the early 2000s. On the way to overcome the consequences of the post-socialist transformational crisis by domestic industry it became one of the most important locomotives.

No wonder that in terms of implementation, the implicitly declared task about the formation of the industrial-agrarian model of the national economy, it is MMC that acquires the key role, which largely determines both the logic and the content of a number of internal economic processes in Ukraine and the reference points of foreign trade policy.

Numerous specific attributes of the national economy model (from the specifics of tariff setting for cargo transportation, the fiscal mechanism for returning of value-added tax to exporters and rental legislation to the exchange rate policy of the National Bank of Ukraine and poly-vector foreign policy) were primarily by theirs origin obliged to the exclusive role of the MMC in it.

However, a crushing blow of the Great Recession of 2008–2010 made certain adjustments to the current situation. It weakened much the position of mining and metallurgical products producers both in Ukraine and in the global economy generally. The collapse in commodity prices, the sharp increase of the competitive struggle in the markets of low-technology processes goods under the influence of the countries of the BRICS group (Brazil, Russia, China, India, South Africa) led to a deterioration of the competitive positions of the majority of specialized domestic companies and, correspondingly, of the MMC in a whole. The direct consequence of the weakening of the competitive advantages of the MMC in the world market in the absence of adequate internal compensators for reducing the demand for its products was: catastrophic fall in Gross Domestic Product, decline in employment rate and real incomes of the population, and in the long term, externally defined degradation of the reproductive structure of the national economy, its technological simplification and agrarian-industrial peripheralization. Despite the all acute, the solution to the problem of reviving the Ukrainian MMC in the post-recession period, unfortunately, was not adequately reflected in the works of representatives of the domestic scientific community.

The attempts that have been applied in practice in order to improve the competitive advantages of the domestic MMC in the global marketplace are based on the use of traditional instruments of national competition policy such as exchange rate depreciation, real wage decline, etc. They demonstrate rather low rate of efficiency in conditions of specificity of the modern globalization processes associated with the increasingly sophisticated methods of local selective protectionism that determines the relevance of the search for the adequate to the current competitive situation effective mechanisms for the revival of the MMC of Ukraine.

Analysis of recent papers. The study of the problem of the mining and metallurgical industries innovative development is based on the theoretical and methodological provisions of leading foreign and domestic scientists who work in this subject area. At the same time, four main groups of research works that form the theoretical and methodological foundation of the undertaken study can be singled out. Firstly, these are micro-level developments that reveal the possibilities, limitations and prospects for the activity of a separate enterprise of MMC as an initiator and implementer of specific innovation and investment projects [1–2]. Secondly, the research works which are devoted to the study of the meso-level of MMC, to the definition of determinants, trends and features of self-development and cluster-forming processes under context of competition in the national, regional and global markets [3–6]. Thirdly, these are research works that are concentrating their attention to the macro-problems` functioning and development of MMC. On the one hand, they reveal the tasks and the role of the state in providing the general innovation-investment climate that is comfortable for all participants. And, on the other hand, they determine the position of the state in implementation of the targeting policy which implies the accumulation of the material, labour, financial resources in certain priority national economy areas, the promotion of the effective industries development that play the role of «growth poles» [7–8]. Finally, the

fourth group of research works consist of thematic expert-analytical researches of international organizations (World Trade Association, World Economic Forum, United Nations Conference on Trade and Development, Organization for Economic Co-operation and Development and World Steel Association). These studies are saturated with statistical information, based on which, from the point of view of demand (consumption) and supply (production), the situation on the world markets of ore metals, cast iron, steel, steel products and steel-containing products is forecasted. The local (national) MMCs are considered in the context of their involvement in global value chains [9–10] and their role in implementing the global strategy of sustainable development [11], compliance its ecological values.

Aim of the paper. The purpose of the article is to study the processes occurring in the mining and metallurgical complex of Ukraine, and the search for mechanisms of its revival within the framework of national competition policy in the context of globalization. The solution of the specific tasks that had been raised in the study was carried out on the basis of the use of both general scientific methods and specific ones, such as: scientific abstraction that was applied in identifying the main problems of the Ukrainian MMC development in the modern period, analysis and synthesis that were used in studying the reasons for the weakening of the enterprises` competitive advantages of the mining and metallurgical industries, structural and genetic methods were exploit in research of genetic features of the interaction of metallurgical and mining structural components of the MMC of Ukraine, economic and mathematical modelling methods was applied in explore the main trends in the development of the national mining and metallurgical complex and its positions in global markets.

Materials and methods. The sharp drop in exports volume of domestic MMC in period of crisis of second half of the 2000s (only in the export of non-precious metals from 27.59 billion dollars in 2008 to 12.81 billion dollars in 2009) was a vivid illustration of the catastrophic deterioration of its competitive positions in the global economy that led to a significant displacement of Ukrainian exporters from a number of traditional markets (Tab. 1). But, the transition to a positive trend in the economic dynamics of the countries-counterparties and the corresponding reversal of prices for the products of the MMC contributed to the gradual recovery of domestic exports that is reflected in Table 2. Even this, however, very unsure and ambiguous positive trends were not destined to gain a foothold. The weakening of the competitive position of the mining and metallurgical industries of Ukraine was even more aggravated by the loss of control on a series of the strategically important metallurgical enterprises and deposits which are developing coal of rank C–A that are located on the east and south of our country.

Table 1

The redistribution of world market segments between Top-15 steel-producing countries (suppliers), 2008–2019

Country	Rank – 2019	Rank – 2008	Tonnage	Share (%) of world crude steel output 2019	Change of countries share (%) of world crude steel output from 2008 till 2019	Index of market share growth / percent of 2011
China	1	1	996.3	53.3%	+15.2%	140
India	2	5	111.2	5.9%	+1.67%	139
Japan	3	2	99.3	5.3%	+0.76%	117
United States	4	3	87.9	4.7%	+0.63%	115
Russia	5	4	71.6	3.8%	–0.18%	95
South Korea	6	6	71.4	3.8%	–0.20%	95
Germany	7	7	39.7	2.2%	–0.31%	88
Turkey	8	11	33.7	1.8%	–0.35%	84
Brazil	9	9	32.2	1.7%	–0.80%	68
Iran	10	19	31.9	1.4%	–1.06%	57
Italy	11	10	24,5	1.3%	–1.30%	50
Taiwan, China	12	12	22,1	1.2%	–1.32%	48
Ukraine	**13**	**8**	20,8	**1.1%**	**–1.69%**	**39**
Viet Nam	14	18	20,1	1.1%	–2.16%	34
Mexico	15	15	18,6	1.0%	–3.60%	22

Source: [12]

The fixed growth in the share of the MMC products in the total volume of industrial products sold in Ukraine (after the maximum drop to 25.83 % in 2016 to 27.7% in 2019 (Tab. 2) can hardly be considered as representative evidence of positive changes in the context of a sharp drop in output in previous years, both in the MMC and in the national economy as a whole. Such an outstripping growth of its share in terms of the recovered dynamics of the national economy only confirms, on the one hand, the status of one of the «growth poles» assigned to the MMC, which a priori should be as a locomotive and catalyst for domestic industry [6]. On the other hand, taking into account the internal dynamics of the MMC and the change in the ratio of its mining and metallurgical components (Fig. 3–4), it clearly indicates a negative technological vector and antiquality of the implemented national model of economic growth.

Table 2

Dynamics of economic results of Ukrainian MMC, 2010-2019*

Years	MMC's volume of output		MMC's total volume of sold products sold Ukraine		MMC's export	
	thsd. UAH	as share (%) of total Ukrainian output of industrial products	thsd. UAH	as share (%) of total Ukrainian sold industrial products	thsd. USD	as share (%) of total Ukrainian commodity export
2010	405678193.4	38.6%	370385355.3	31.55%	22100996.8	31.6%
2011	492346998.9	38.0%	480789303.1	32.51%	22100996.8	32.5%
2012	427120527.6	32.3%	415471146.7	27.38%	18889845.9	27.4%
2013	413243237.3	34.0%	415956060.6	27.84%	17570747.8	27.8%
2014	441082887.7	33.3%	442984151.7	28.26%	15229006.2	28.3%
2015	516302303.7	30.6%	526300390.6	27.45%	9470719.2	27.5%
2016	609259404.3	28.3%	617163561.6	26.34%	8338854.6	26.3%
2017	816705767.4	29.7%	807106376.0	28.20%	10124613.3	28.2%
2018	964007693.8	31.0%	978680867.1	29.63%	11632691.7	29.6%
2019**	No data		1029984000.0	30.43%	10257770.7	31.8%

* Here and hereinafter, since 2014 Ukrainian statistical data are presented excluding the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone.

** Preliminary data.

Source: [13]

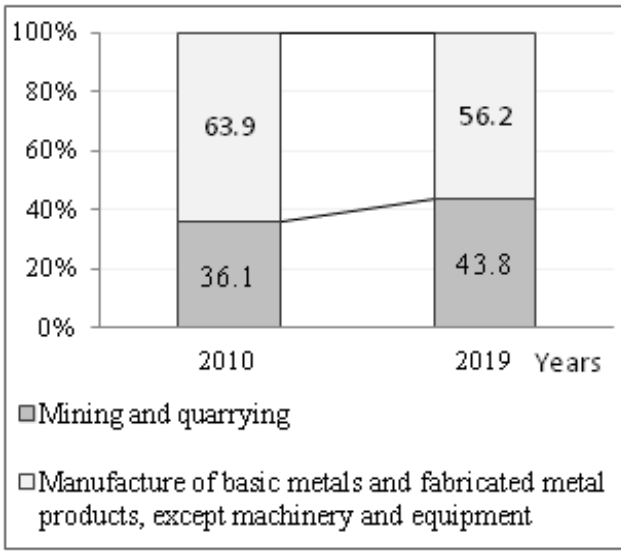

Fig. 1. Dynamics of the internal production structure of the Ukrainian MMC, 2010–2019 [13]

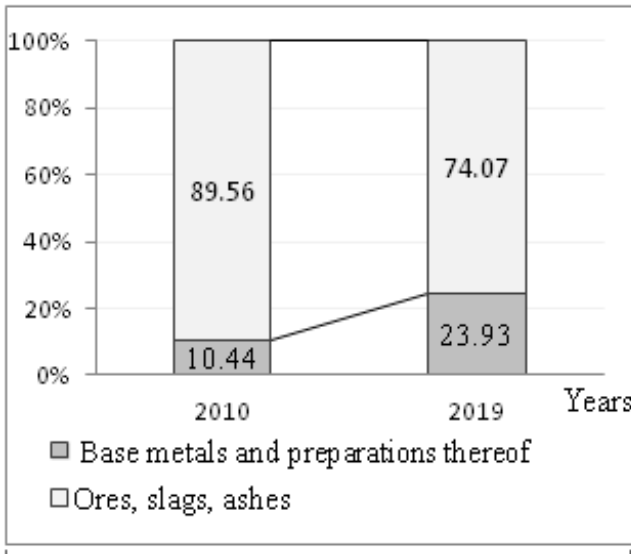

Fig. 2. Dynamics of the external export product structure of the Ukrainian MMC, 2010–2019 [13]

At the same time, if negative trends in the extraction of iron ore and the production of metallurgical products were a bit damped or even compensated (there is a «timid» resumption of growth in the production of steel ingots, a number of assortments of iron pipes, profiles, fittings, etc.) recently, then the situation in the coal industry continues to be critical. Table 3 shows reduction of coal mining in Ukraine by 2.53 times that happened in 2013–2019 [13].

Table 3

Volume's output of hard coal and non-agglomerated iron ores in Ukraine, 2011–2019

Years	Coal of hard		Non-agglomerated iron ores	
	mln.t	volume indices / percent of 2011	mln.t	volume indices / percent of 2011
2011	62.7	100	173	100
2012	65.7	105	176	102
2013	64.4	103	185	107
2014	64.4	103	184	106
2015	30.2	48	175	101
2016	31.6	50	168	97
2017	24.2	39	166	96
2018	26.3	42	161	93
2019	25.5	.41	160	92

Source: [13]

In the conditions of the presence of incompletely loaded production capacities in the unoccupied territories, the domestic metallurgical industry was able to compensate for the losses incurred in the mid-2010s on the extensive basis partially. Metallurgical and mining industries, acting as structural components of the MMC [5; 14], are genetically interrelated (Fig. 3). Thus, changes in one component dictate transformations in the other one. They initiate synergistic interactions with positive feedback. At the same time, the mining industry of Ukraine accounts for about a quarter (20.45 %) of the consumption of metallurgical products, which in the conditions of recovery growth could not help leading to a change in the ratio between domestic and export consumption. Negative processes in the mining industry have led to an increase in the share of exported base metals from 56 % in 2014 to 60–62 % in subsequent years [13]. In this context, the positive prospects for the mining industry (the share of exports for the same period decreased from 29 % to 24–25%), and particularly for the coal mining industry, look rather elusive, especially for the group of coal grades mining of which was concentrated in the east of the country. The extensive way to restore output volumes is doomed to failure in advance, and hopes for solving accumulated problems exclusively at the micro level, the possibilities of frontal investment and innovation expansion by attracting resources from external and internal market players in current political and economic conditions seem too illusory. A similar situation in the coordinates of the synergistic interaction of the metallurgical and mining industries outlines the very restricted limits of natural recovery of Ukrainian mining industry [16].

However, this does not exclude an innovative renaissance of the MMC. Moreover, such a revival is an indispensable imperative of national competition policy in the context of globalization. There is no doubt that the prerequisites for export-expanding, import-substituting and post-industrial economic growth are simultaneously laid down just exactly at the MMC level and, thus, the alternative opportunities for the development of Ukraine in the global and Euroregional economic space are created[8]. It is about the formation of both price and quality potential of high competitiveness of national commodity production in the regional and world markets [6].

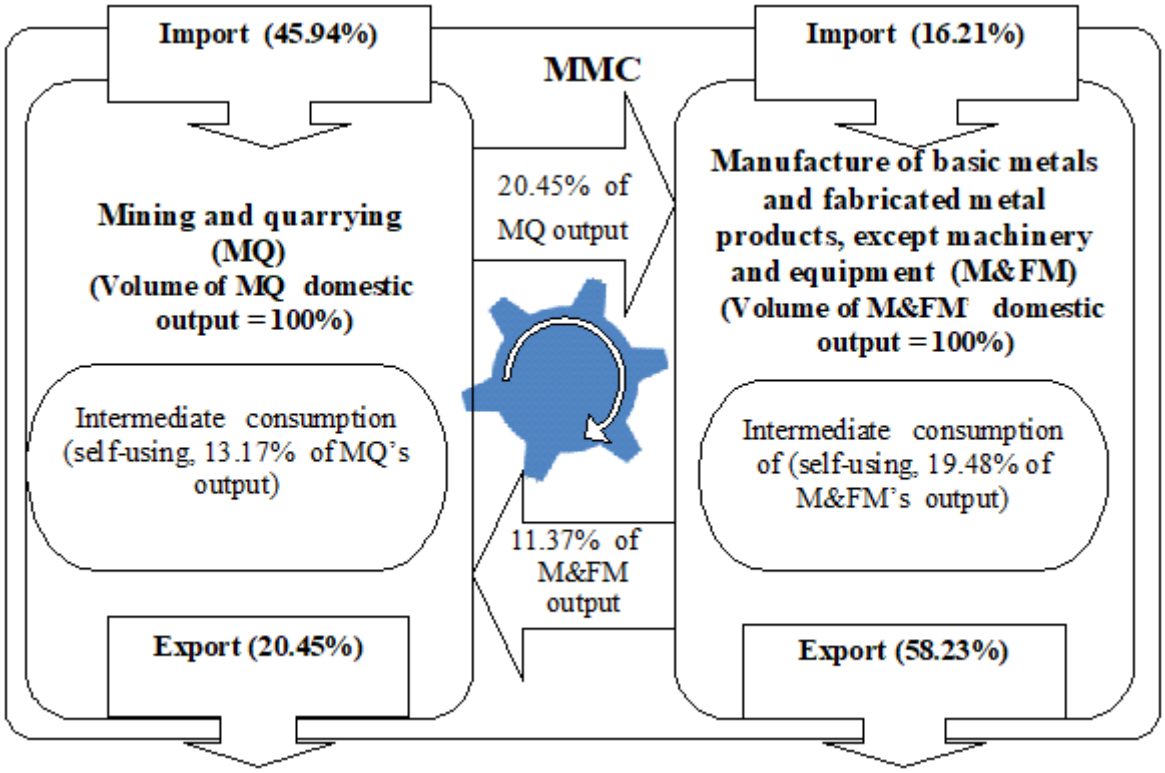

Fig. 3. Technological interactions as a source and autocatalyst for the development of Ukrainian MMC (developed by authors according to the «Input-Output Table», 2018) [13]

The weakness of one of the most important «growth poles», the unsure recovery of the leading driver of positive economic dynamics imposes a negative imprint on the entire national economy, slows down the renovation processes, and postpones the potential prospects for Ukraine's return to the group of world economic and technological leaders. Only the revival of the leading role of the state as an investor and capable of making massive investment injections in a number of priority areas innovative investor, is a condition for enhancing the competitive advantages of the domestic MMC and its sustainable recovery. Moreover, there are all objective prerequisites for such an ideology of state protectionism. There are indisputable arguments in favour of the leading role of the state in managing the innovative development of the MMC such as:

– the realities of post-industrialism, which predetermine the large-scale output of social and ecological externalities of innovative processes beyond the egocentric micro-worlds of the economic subjects, reflecting the key role of innovations in the growth of public welfare [7] and the strengthening of the country's status positions in the world table of ranks and elevating innovative interests to the national ones as a result [17];

– the presence of the promising, but not fully have exhausted their potential of development and competitiveness, of mining and metallurgical productions of industrial type which significantly depend on centralized budget financing, representing by itself the third and fourth technological modes, with characteristic non-market technical and economic structure, excessive resource and energy intensity, high level of monopolization, traditions of state paternalism, relative innovative inertia (Table 4);

– the birth and formation of sprouts of post-industrial reproduction type meeting to international standards of national competitiveness and organic inclusion in global economic processes [6; 9]. Of course, the proto-structures of the post-industrial future, being at the initial stage of the life cycle, cannot develop on their own investment basis and require state support. And it should be not only in terms of resource provision, but also in terms of their initial «linking» to national reproduction, in subordination of their mechanisms of self-development to the realisation and protection of strategic national interests. Ignoring the latter circumstance has

led to the fact that over the years of independence the Ukrainian mining and metallurgical industry has become a raw, environmentally «dirty» appendage of foreign reproduction systems, largely «due to» offshore schemes depriving the national economy of billions of dollars of development currency resources [15]. Precisely in MMC with the connivance of insufficiently patriotic political and economic elite, the mechanism of the «resource curse» was launched. The metamorphoses associated with its functioning are predominantly regressive, mean the irretrievable loss of the natural resource component of national wealth and constitute a threat for the economic future of the country. Chronic neglect of quality in favour of quantity, rent-oriented behaviour, the policy of temporary workers with no facing public resistance and the race for short-term opportunistic benefits lead to technological degradation of the industry, increasing its dependence on external forces of influence as the depletion of its own resource base and (or) the worsening conjuncture of world resource markets;

Table 4

Innovative activity's indicators of Ukrainian industry, total and by performing types, 2011–2018

Indicators	Years	Industry of Ukraine	Mining and quarrying	Manufacture of basic metals and fabricated metal products, except machinery and equipment
Innovatively active part of enterprises as share (%) of observed enterprises	2011	21.01	13.38	15.34
	2014	12.1	7.73	17.27
	2018	16.4	4.74	18.06
Expenditures for research and development as share (%) of sold product value	2011	1.12	0.69	0.16
	2014	0.54	0.24	0.21
	2018	0.37	0.22	0.28
The sales of innovative products as share (%) of the total volume of sold industrial production (goods, services)	2011	3.8	0.02	3.76
	2014	2.5	0.06	6.21
	2018	0.8	0.98	6.4
Investment into new machines, equipment and tools as share (%) of capital investment	2011	7.30	1.42	4.40
	2014	5.90	0.99	2.41
	2018	4.91	0.83	4.92

Source: [13]

– actualization of the problems of regularity, proportionality and synchronization of the development of various symbiotic components of the mining and metallurgical industry, their progressive evolutionary transformation and technological compatibility (regulations, norms, standards, safety requirements, etc.), an objective impossibility to exclude or eliminate the existing disparities and discrepancies across the industry and the whole country with minimal time expenditure in private;

– strict conditions of global competition and restrictions associated with tariff protectionism of domestic producers in the implementation of the Association Agreement between Ukraine and the European Union. Representatives of the mining and metallurgical industries are faced with the challenge of intensifying innovative development and raising the level of technological and product competitiveness. In this situation, from all possible options for the state support of the MMC enterprises, the direct state investments have indisputable advantages. Unlike indirect fiscal stimulus instruments (grants, subsidies, subventions, concessional loans and tax preferences), theirs use cannot serve as a pretext for compensatory or anti-dumping investigations and the reason for imposing appropriate sanctions towards domestic exporters of mineral and metallurgical products;

– the existence of numerous problems of non-economic nature which successful solution requires the direct participation of the state. It is about establishing the rules of an economic game in the context of progressive erosion of property rights to an information and intellectual product, protection and lobbying of national in-

terests in the global economic system, transmission to the public consciousness the values, innovative, social and ecological attitudes that are adequate to the realities of post-industrialism;

– organic involving the community sector of the economy, and, firstly, its scientific and educational sphere into the innovation processes. In contrast to demand factors, under pressure from consumers' requests who are initiating modify ordinary innovations, it is science, and primarily fundamental academic since, that is the only source of breakthrough innovative ideas which ensure technological «leaps» of quality and turn growth into progressive development.

The task of diffusion of innovation, activation and expansion of the practice of research and production cooperation cannot be successfully solved without state participation and budget financing. In particular, we are of the opinion that it is necessary to establish legislatively a minimum budget quota under the item of expenditure «Fundamental and applied research and development in economic sectors» and give this item a protected status for restore the integrity of the innovation process «fundamental science → applied research → development work → production → consumption». Also in the context of the achievements of world mining and metallurgical science, an audit and selection of domestic scientific research for identifying breakthrough innovative ideas that can eventually initiate the design and implementation of high, critical and strategic technologies should be carried out. Such potential sources of comparative competitive advantages, intellectual and technological rent have to become the object of priority state support and must be included into the long-term budget program for the financing of scientific and technical work.

The restoration of the practice of government orders related to the improvement of production technology and including fully or partially budget financing of experimental developments can accelerate the obtaining of a real scientific and production result (for example, studies of the possibility of modifying domestic coal which are critical for raising the level of national energy and environmental safety; research of new technologies for increasing the efficiency of development of hydrocarbon deposits at great depths and new methods aimed at ensuring the ecological safety of high-performance coal mines; technologies for smelting a wide range of anticorrosive steels and ferroalloys, the production of various porous materials, modern types of rolled products, pulverized coal, collecting and primary processing of scrap into metallurgical raw materials. Among the promising directions of metallurgy development are diversification of production and optimization of its structure as a result of increasing the nomenclature of special steels and alloys, rolled metal, aluminium foil, creation of new types of zirconium products, for example for power plants with direct conversion of fuel energy into electrical energy, increase production of rolled and corrosion-coated pipes, calibrated rolled products, bent profiles, as well as pipes for the thermal elements of atomic electric stations; introduction of energy and resource cost standards, etc. [16])

This will not only create an innovative platform for modernizing the domestic MMC, will preserve and strengthen the leading scientific schools, but also prevent uncontrolled leakage of innovative developments and technologies abroad, and will allow increasing foreign exchange earnings from the export of intellectual property in the long term.

As the practice of the last decade shows, in global competition on the markets of raw materials and metals, the advantages are received by countries with a capacious domestic market and consequently they become insensitive to the influence of external opportunistic destabilizers. There is no doubt that the strategically important task is to increase the quantity and improve the quality of domestic products consumption (Fig. 3), in this context the MMC requires the participation of the state in the process of coordinating development programs for the strategic development of the national economy. First and foremost, it comes for alignment of resource constraints and production capabilities of the MMC with the needs of the main consumers of its products for long-term balancing of supply and demand structure. At the same time, special attention should be paid to stimulation the production of high value-added steel products through the demand on it from the military-industrial complex, shipbuilding and aircraft building industries, the automotive industry, the construction industry, the nuclear and electric power industries.

Table 5

World structure of steel products use by type of the largest consumers, 2018

Type of economic activity	Share (%) of worldwide use of apparent steel
Manufacture of motor vehicles, trailers and semi-trailers and other transport equipment	28%
Manufacture of basic metals, manufacture of fabricated metal products, except machinery and equipment	23%
Manufacture of special-purpose mechanic machinery	19%
Manufacture of electrical equipment	3%
Manufacture of other transport equipment	12%
Mining and quarrying	8%
Building & Infrastructure	4%
Others consumers	3%

Source: [12]

In the framework of state policy of import-substitution and stimulation of the domestic demand for the MMC products it is also advisable to apply such measures as: a total prohibition on the purchase of imported goods, analogue or close substitutes which are produced in Ukraine as applicable to all budget organizations and state-owned enterprises; the tariff escalation of imports; the legitimization of requirements for the minimum allowable content of local components in products that are sold on the domestic market; the support of the practice of counter-export purchases; the formation and dissemination of the ideology of national economic patriotism which also is manifested in the orientation of the domestic consumer to purchase goods of domestic production.

Conclusions. Prospects for the effective revival of MMC, that are based on our own strength and the remaining resource, production and technological potential, determine the conceptual foundations of the domestic model of state intervention in the processes of functioning and development of Ukrainian mining and metallurgical complex and set priorities, strategy, tactics, innovative vector, and the scale of investment expansion for this model.

The strategic imperative of the state model of MMC development is the comprehensive support of the primary specialized scientific and technical component of the innovation process, the activation of university/industry research collaborations and the stimulation of resource-saving technological innovations. The tactics must be focused on increasing the domestic demand for MMC products, including by expansion of import substitution and budget practice of targeted tender purchases. The increasing of domestic demand will lead to growth of profit expectations from realization of investment projects and, ultimately, to activation of innovation and investment processes in the business sector.

This requires, first of all, an extensive use of the arsenal of indirect fiscal regulation tools (such as tax preferences to innovators, soft loans, grants, subsidies) that increases strengthens of innovative private ownership interests and expands the financial possibilities for their implementation. On the other hand, the mechanisms of direct state investment and consumption should facilitate the launch and support of progressive technological changes in the domestic mining and metallurgical industries. In the context of globalization and market liberalization, direct investment support is preferable since it does not entail compensatory or anti-dumping investigations and is not the reason for imposing appropriate sanctions towards domestic exporters of mineral and metallurgical products.

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ІННОВАЦІЙНЕ ВІДРОДЖЕННЯ ГІРНИЧО-МЕТАЛУРГІЙНОГО КОМПЛЕКСУ УКРАЇНИ ЯК ІМПЕРАТИВ НАЦІОНАЛЬНОЇ КОНКУРЕНТНОЇ ПОЛІТИКИ

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Методологія дослідження. Результати отримані за рахунок застосування наступних методів: аналізу та синтезу – для виявлення основних актуальних проблем розвитку гірничо-металургійного комплексу (ГМК) України та причин поступової втрати його міжнародних конкурентних переваг; структурного аналізу – для дослідження особливостей технологічної взаємодії металургійної та гірничо-видобувної складових ГМК; статистичний аналіз, методи економічного та математичного моделювання – для дослідження провідних тенденцій розвитку національного ГМК та динаміки його позицій на світових ринках рудних металів та металевих виробів.

Результати. Виявлені та обґрунтовані основні причини негативних тенденцій у розвитку ГМК України, супутньої поступової втрати його міжнародних конкурентних переваг та витіснення вітчизняних експортерів з найбільш динамічних високотехнологічних сегментів світового ринку металопродукції. Емпірично доведено, що незважаючи на кризову ситуація, ГМК поки що залишається провідним «драйвером» національної промисловості й відіграє вирішальну роль у наповненні доходної частини торговельного балансу країни.

Розроблені концептуальні основи моделі активного державного втручання в процеси функціонування та розвитку ГМК України, визначені його стратегічні та тактичні завдання, форми та інструменти реалізації. Розкриті передумови інноваційного відновлення та технологічної модернізації підприємств ГМК в умовах глобальної конкуренції, зокрема запропоновані механізми їх прямої інвестиційної та бюджетної державної підтримки. З огляду на технологічні інтеракції (виробник продукції ↔ споживач продукції) складових ГМК, зростання внутрішнього попиту на продукцію металургійного виробництва апріорі стане потужним каталізатором розвитку гірничодобувної промисловості та дозволить сповільнити неефективний і загрозливий для майбутнього експорт вичерпних природних національних багатств.

Новизна. Запропоновано заходи, орієнтовані на пожвавлення інноваційно-інвестиційної діяльності в ГМК України з акцентом на стимулюванні внутрішнього попиту на металопродукцію у межах політики імпортозаміщення. Конкретні рекомендації розроблено із врахуванням специфіки нетарифного неопротекціонізму та особливостей технологічних взаємодій між гірничодобувною та металургійною складовими ГМК.

Практична значущість. Отримані результати сприятимуть удосконаленню державної промислової політики, спрямованої на розвиток гірничо-металургійного комплексу України, інноваційне посилення його міжнародних конкурентних переваг та здолання «ресурсного прокляття» сировинної економіки.

Ключові слова: гірничо-металургійний комплекс, світовий ринок, глобальна конкуренція, конкурентні переваги, конкурентна політика, стратегія розвитку, експорт, інновації, імпортозаміщення, протекціонізм.

ИННОВАЦИОННОЕ ВОЗРОЖДЕНИЕ ГОРНО-МЕТАЛЛУРГИЧЕСКОГО КОМПЛЕКСА УКРАИНЫ КАК ИМПЕРАТИВ НАЦИОНАЛЬНОЙ КОНКУРЕНТНОЙ ПОЛИТИКИ

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Методология исследования. Результаты получены за счет применения следующих методов: анализа и синтеза – для выявления для выявления основных актуальных проблем развития горно-металлургического комплекса (ГМК) Украины причин постепенной потери его

международных конкурентных преимуществ; структурного анализа – для исследования особенностей технологического взаимодействия металлургической и горнодобывающей составляющих ГМК; статистического анализа, экономико-математического моделирования – для исследования основных тенденций развития национального ГМК и динамики его позиций на мировых рынках рудных металлов и металлических изделий.

Результаты. Выявлены и обоснованы основные причины негативных тенденций в развитии ГМК Украины, сопутствующего ослабления его международных конкурентных преимуществ и вытеснение отечественных экспортеров из наиболее динамичных высокотехнологичных сегментов мирового рынка металлопродукции. Эмпирически доказано, что несмотря на кризисную ситуация, ГМК все еще остается ведущим «драйвером» национальной промышленности и играет решающую роль в наполнении доходной части торгового баланса Украины.

Разработанные концептуальные основы модели активного государственного вмешательства в процессы функционирования и развития ГМК Украины, определены его стратегические и тактические задачи, формы и инструменты реализации. Раскрыты предпосылки инновационного обновления и модернизации предприятий ГМК в условиях глобальной конкуренции, в частности предложены механизмы их прямой инвестиционной и бюджетной государственной поддержки. Учитывая технологические интеракции (производитель продукции ↔ потребитель продукции) составляющих ГМК, рост внутреннего спроса на продукцию металлургического производства априори рассматривается как мощный катализатор развития горнодобывающей промышленности, позволяющий замедлить неэффективный и угрожающий будущему экспорт невозобновимых исчерпаемых природных национальных богатств.

Новизна. Предложены мероприятия, ориентированные на оживление инновационно-инвестиционной деятельности в ГМК Украины с акцентом на стимулировании внутреннего спроса на металлопродукцию в рамках политики импортозамещения. Конкретные рекомендации разработаны с учетом специфики нетарифного неопротекционизма и особенностей технологических взаимодействий между горнодобывающей и металлургической составляющими ГМК.

Практическая ценность. Полученные результаты будут способствовать совершенствованию государственной промышленной политики, направленной на развитие горно-металлургического комплекса Украины, инновационное усиление его международных конкурентных преимуществ и преодоление «ресурсного проклятия» сырьевой экономики.

Ключевые слова: горно-металлургический комплекс, мировой рынок, глобальная конкуренция, конкурентные преимущества, конкурентная политика, стратегия развития, экспорт, инновации, импортозамещение, протекционизм.

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