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O. O. ALSUFIEVA,
Senior Lecturer of International Economics,
Political Economy and Governance department,
National Metallurgical Academy of Ukraine

STRATEGIC PRIORITIES AND CURRENT TASKS OF HARMONIZATION THE ECONOMIC INTERESTS OF THE SUBJECTS OF NIS

The article discusses the theoretical foundations of the study the harmonization phenomena of the economic interests of the subjects of NIS. Alternative approaches to understanding the harmonization of the economic interests of the subjects of NIS in the modern economy are identified and analysed. It is shown that the economic interests of the subjects of NIS form a holistic network system based on the appropriation of factors and results of innovative activities. The approach to the analysis of NIS' dynamics from the “triple helix” model to the “polystructural helix” model, covering many levels and sectors of the NIS, has been expanded. An integrative interpretation of the coordination of the economic interests of NIS subjects in different essential forms such as a process, a specific activity, a set of relations, and a set of institutions and institutes is proposed. It is demonstrated that the subjects of NIS take part in economic interests' harmonization as in a specific activity, and a certain state of their consistency is achieved due to mutual influence. In its turn, the genesis of external influence on harmonization consists in moving from individual forms to more difficult and complex, from formal means of influencing the subject as a carrier of innovative needs and interests to more targeted, aimed at the complex (synergistic) involvement of him into the innovative activity. The subject of innovative activity can influence on its deployment individually and (or) within those or other organizations and institutions. At the level of the subject, they are approaching to the maximum solution of the contradictions of a plurality of economic interests regarding innovation.

Key words: harmonization, economic interest, innovative activity, national innovation system, polystructural helix, innovation development.

Statement of the problem. The permanent transformation of selected national economies and the world economy as a whole produces the need for scientific substantiation of the recommendations on the formation of not only the systemic basis of innovative activity at all levels of the national economy, but also the creation of a such qualitatively new education as an open National Innovation System (NIS). In the present context it is pertinent to consider NIS as an organic part of the world's innovative system that can simultaneously increase the competitiveness of the country and the well-being of its population. In the context of the tasks of modernization of Ukraine, the analysis of world trends for the next two decades is

especially important. The country has to accelerate its adaptation to the global challenges which manifest themselves in a various spheres of public life, on the base of the compromise between the interests of economic subjects. According to this, the identification of the strategic priorities and current tasks of harmonization the economic interests of the subject of NIS are relevant.

Analysis of recent research and publications. Throughout the history of the society development, the evolutionary formation and improvement of forms, methods and institutions which were designed to structure the interaction and to coordinate the interests of economic subjects was observed. Thus, the means of eliminating the causes that create inconsistency in society and the basis for the formation of the state through the social agreement are considered in the works of Plato, Aristotle, T. Hobbes, J. Russo, J. Locke, A. de Tocqueville, in essays of J. Madison and D. Hamilton, etc. As a basis for the harmony of interests, F. Bastia (in “Economic Harmony”[1]) defines the capitalism as an association of the subjects united by the common goal. According to the classics of political economy, a market economy has the advantages of harmonizing the interests of economic entities in comparison with their forced regulation. Contrary to the opinion of “classics”, J. Bentham sees as a mechanism for harmonization individual interests not the market and not the competition, but the state legislation. According to K. Marx, the harmony of interests of economic subjects should be sought not in themselves, but in the mode of material production, dominant economic relations and, above all, in the relations of property. In the view institutionalists, the repetitive interactions between people are structured by institutions, and “transaction costs” include the costs of using administrative control mechanisms in various sectors of the economy, the costs of coordinating activities and resolving conflicts between the interests of economic subjects. At the same time, unidirectional interests of economic subjects can significantly reduce their transaction costs, and the full institutionalization is possible in the harmonization of decisions of economic subjects of different levels, it means on the basis of the harmonization of their interests. It is the institutionalists who consider the set of instruments for reaching an agreement, such as: collective actions in the conditions of legal regulation and under the control of the state, measures of raising institutions, forming of the expectations, conventions, social corporatism, lobbyism, intermediacy processes, etc.

The analysis of scientific literature has shown that the harmonization of economic interests in one way or another way is reflected in almost all directions of economic theory, is a multifaceted, complex and interdisciplinary concept, but the definition of this notion is avoid by the authors or are given in the tradition of institutionalism. The definition of this term can be found in applied disciplines. According to them it is: mutual compromise, it means voluntary subordination of

individual interests to the common (in sociology); the process of coordination and combination of actions of economic actors, which contributes to the progressive development of the economy (management); principle of making economic decisions, according to which constant cooperation between representatives of the state, region and economic entities is carried out in order to ensure comparability of management economic information of different levels, consistency, coherency of joint decisions (regional economy); specially organized activity of the subjects of legislation in relation to the coordination of positions in relation to the interests expressed in the law (branch of lawmaking).

Formulation of the article's goals. The purpose of the article is to define the content of the concept of “economic interests’ harmonization” and to clarify the strategic priorities and current tasks of harmonization the economic interests of the subjects of Ukraine’s NIS.

Presentation of the main material of the study. The economic interests of the subjects of NIS form a holistic network system based on the appropriation of the factors and results of innovation activity and, in turn, fulfil the system-generating function for the development of the NIS. We are of the opinion that NIS, as the institution of the macro-level of the economy, is a complex combination of elements and subsystems of formal and informal institutions that support and direct the interaction of innovative activity subjects under the conditions of the state national innovation policy.

System interdependence of relations (techno-technological, organizational-economic, socio-economic) with regard to innovative activity, which manifests itself from the nano-and micro level, get complicated and acquires specific system features and forms at the more upper levels – regional, national, international. However, the dynamics and direction of the NIS determine exactly the economic interests. Their equilibrium is achieved firstly on the basis of awareness of the common interest in the implementation and realisation of the results of innovation activities under all conditions, and secondly, the activities of entities aimed at achieving a compromise between their interests.

Harmonization of the economic interests of the subjects of NIS can be defined as a complex category, which has a plurality of manifestations, such as: *a set of relations* regarding the achievement of the equilibrium (balance, compromise) of the economic interests of the NIS subjects to ensure the innovative development of the national economy; *a set of formal and informal norms and rules* for achieving equilibrium (balance, compromise) of the economic interests of the NIC subjects, and also mechanisms for supporting these norms and rules. It should be pointed out that under the equilibrium of interests is meant the achievement of the temporary state of their mutual compliance on the assumption that its participants have no incentive to

move away from the reached agreements; *an activity* of the subjects of NIS that is aimed at reaching agreements on the forms, methods and guarantees of the realization of their interests; *a process* of establishing the forms of mutual correspondence of the plurality of interests of the subjects of NIS for ensuring the innovative development of the national economy; *a subsystem* of the economic regulation system (an integral part of the superstructure) that is aimed at adjusting the interests of the NIS subjects in order to achieve their equilibrium (balance, compromise) to ensure the innovative development of the national economy.

The subjects of the NIS take part in harmonisation of economic interests as in a specific activity (directly or indirectly, consciously or subconsciously, at all levels of the economy), and a certain state of their coherence is achieved through mutual influence (direct, indirect, indirect by other entities or institutions). Thus, at the macro level of the NIS, the activity is aimed at achieving the mutual correspondence of the interests of its aggregated actors such as: sectors of the national economy, which are involved directly or indirectly in the production and implementation of the results of innovation activity; state coordination and innovation support sector; sector of consumers of the results of innovation activities.

Harmonization of the economic interests of NIS subjects covers a variety of activities. These are procedures, processes (strategic, tactical, operational), methods, incentives (economic, administrative, moral, social, cultural, direct, non-direct, mixed), tools, initiatives (business, state, partnerships, integration interactions) that are used for achievement of the state of the interests general equilibrium (balance, compromise) of the subjects of NIS. Such sectors of NIS as research one, innovation-technological, production, financial, state coordination and support of innovation activities, non-state support are characterized by relative functional independence on the one hand and synergistic unity and mobility within the bounds of the NIS on the other hand. Under the conditions of development of innovation activity, its subjects interact and gravitate towards each other as a result of the integration-innovation alliance of social, collective and personal interests on the basis of existing relations of appropriation and also conditions and possibilities for their realization.

From the standpoint of a functional approach, the structure of the NIS can be represented as a set of private and public institutions and a system of information and technological connections between them that reflecting the interactions such as: interactions between enterprises; between enterprises, research institutes, universities, including joint research, preparation of joint publications, registration of joint patents etc.; cooperation on venture financing of R&D, preferential taxation of innovation activity, mobility of creative (that are able to generate new ideas) personnel; interactions concerning with the development of informal relationships and the development of other activities that promote innovation. The dynamics of the

harmonization of economic interests at the macro level of NIS is reflected in the dynamics of general macroeconomic indicators and indicators that characterize innovation activity at the macro level of the economy directly.

The research of the network of economic interests of the subjects of the NIS allows a more balanced approach to understanding the strategic priorities and the current tasks of their harmonisation [2]. A variety of innovative interests produce a broad “palette” of scenarios for their harmonization. In our opinion, this situation causes an expansion of the approach to analysing the dynamics of NIS from the model of the “triple helix” (science, private sector, state) and the “fourth helix” (civil society) to the “polysystem helix” (a plurality of levels and sectors of the NIS).

The modern NIS are in the process of internally systemic (aimed at modernizing the existing in the system socio-economic relations and identifying elements) and intersystem (aimed at modernizing the form and content of the relations between the NIS of different countries) transformations which involve all their constituent elements of all hierarchical levels (tab.1, tab.2) [3, 4].

Table 1

Strategic directions of harmonization the economic interests of the subjects of open NIS in the conditions of globalization the innovative development

Directions	Manifestation	Characterization of coordination of the EI of the subjects of IA	Consequences of harmonization of the EI of the subjects of IA
Accelerating the growth rate of world trade over GDP growth rates	Transformation of the content of economic growth towards quality characteristics	Polystructural harmonization of the vertical NIS interests with regard to personality security, property rights, including intellectual, information security, and security of the living environment	Continued economic development of achievements in the information and telecommunication sphere, electronics, engineering, construction, etc., the emergence of fundamentally new technologies that improve the quality of human life on the basis of the synthesis of nano-, bio-, info- and cognitive technologies; the emergence of a technical ability to dramatically expand the biological potential of a person, etc.
Supranational institutes and structures that support the innovative potential of humanity	The emergence of individual elements of the global coordination system, official and informal, traditional and newly created intergovernmental institutes	Polystructural harmonization of the interests on the vertical in order to approach the global consensus on the principles, directions and pace of collective development of the resources of the planet and the near-Earth space in general	Institutional design of various integration formats

Migration of labour force	Global system of social stability and balance of labour relations	Polystructural harmonization of the interests in a vertical with a dominant on nano and micro levels	Improving the quality of the work force, its motivation, the level of culture of consumers of innovations, including through modernization of education and training systems, etc.
Capital movement	A persistent global imbalance in the dynamics of savings and investments in the economies of countries with different levels of development. Wave-like instability of stock markets, preservation of risks of emergence of critical macroeconomic imbalances	Networking polystructure harmonization the interest of macro subjects mostly (the interests of corporate business against the interests of countries and the world as a whole, because of growing global disturbance of schemes to overcome the crisis, which save large capital at the expense of the interests of the general population)	Institutional separation of investment, speculative, mortgage, commercial functions of financial institutions; the introduction of tax and administrative limitations on the speculative activity of financial institutions; creation of new insurance mechanisms and "airbags" for the real sector; formation of powerful national and regional "rescue funds" of large corporations of financial and real sectors in crisis situations
Fluctuations in the financial sector	Reflection in the financial field of the schemes of political relations between the states within the framework of multilateral diplomacy	Polystructural network harmonization is not based on the principles of provision, equality, but maintaining the stability of the system, by the efforts of its most influential subjects	Institutionalization of harmonization the financial sector, the change of financial architecture, which will increase the legitimacy of global governance
Climate changing and energy saving	Minimizing the losses of the global economy from natural disasters and improving the human habitat	Polystructural harmonization of the vertical NIS interests	The development of innovative ecological technologies, the search for technological breakthroughs in the field of energy saving, the more efficient removal and use of traditional energy resources, the development of trade in quotas for CO2 emissions, etc.
Changing the corporate map of the world	Growth of investment, production and innovation potentials of the world's TNCs and TNBs in relation to the capacities of the states.	Complex polystructure harmonization of the interests of macrosubjects (interests of corporate business against the interests of the country and the world as a whole)	Increasing the efficiency of using capital in the world's leading countries; increasing interdependence of the world's major players; Strengthening the compromise approach to solving global security problems

Harmonization of the economic interests of the subjects of NIS evolves due to the expansion of the sphere of conscious influence on the subjects of innovative activity [5], for example, such as: by the way of influence – direct and indirect; in the form of influence – normative, regulatory; on the scale of the choice of influence -

universal (is aimed at the general population), group, individual; in the direction of influence – through the subjective (estimates, expectations, forecasts, values) and objective (working conditions, life, use of free time) spheres of its life. The genesis of external influence on harmonization consists in moving from individual forms to more difficult and complex, from formal means of influencing on the subject as on a carrier of innovative needs and interests towards more targeted, aimed at the complex (synergistic) involvement of him in the innovation activity.

Table 2

Strategic priorities, tasks and forms of harmonization the economic interests of the subjects of open NIS

Priorities	Main tasks		Forms of harmonization
Providing transition from industrial-market to information-network economy			
Disclosure of the innovative essence of man	Independent innovators	Overcoming the trends of fragmentation and degradation of personality and of society	Complementary interaction on the basis of entrepreneurial activity and public-private partnerships mainly
	Research Sector	Creation of conditions for effective innovative activity and implementation of its results	
	The State Support Sector		
	Non-Governmental Support Sector		
	Innovation and Technology Sector	Public selection and commercialization of innovations, their transformation into a factor of social and economic development	
	Production Sector		
	Financial Sector		
Establishment (singling out) of potential opportunities and determination of the trend of innovative development of high-tech and traditional sectors of the economy of Ukraine			
Definition of common and unique ways of solving crisis manifestations in each sector	Independent innovators	Availability of education, focusing on the formation of specialists with modern system vision	Dynamic transforming cross-sectoral cooperation that is capable of correcting the forms and methods of interaction of independent innovators, institutes of science, education and business in the innovation
	Research Sector	Development of measures to increase the effectiveness of protection and further use of intellectual property; responsible training of modern skilled domestic specialists; definition and promotion of technologies that have the potential for commercialization; creation of an attractive climate for domestic experts, exchange of experience with foreign specialists, preferential training, adaptation of various groups of working population to profound changes in the nature of economic activity	
	The State Support Sector		
	Non-Governmental Support Sector		
	Innovation and Technology Sector	Increasing a number of enterprises operating in the field of nanotechnology	
	Information and Communication Technology Sector	Detinization the IT business, reducing the pace of the “gray” outsourcing schemes (outstaffing)	
	Production Sector		

		Optimal use of scarce resources; expansion, formation of industrial ties	
	Financial Sector	Focusing on the end product, rather than on the performance of individual tasks of foreign customers; involvement of the private sector in the development of the nanoindustry	
	Agricultural Sector	Shifts of the orientation of Ukrainian agrarians, especially large agricultural companies, to the using of the domestic rather than foreign innovations	
Generalized tendencies of financial support of innovative development			
Adaptation to a permanent search for a solutions to overcome the financial limitations of innovation initiatives	Independent innovators	Focus on self-financing; attraction of external sources; the involvement of domestic scientists to implement international projects without leaving abroad; expansion of the grant system, creation of scholarship funds; joining international structures (laboratories, consortia, etc.) and receiving funding, etc.	Innovative private-state partnership
	Research Sector		
	Innovation and Technology Sector		
	Production Sector		
	Non-Governmental Support Sector		
	Financial Sector	Improvement of mechanisms for raising funds in order to overcome the shortage of “long”\$ money in the banking system; creation of venture funds, private-government funds for certain socially significant projects, simplification of crediting of innovative projects, for which the state is ready to act as a guarantor, etc.	
The State Support Sector	Improvement of financing mechanisms for scientific and technological and innovation activities, including support in the form of direct financing should be coordinated with the priorities of innovation development, focusing on the development of high-tech sectors; compliance with the principle of concentration of state support at the initial stages of the innovation process, tax incentives (the introduction of the so-called “innovative” (tax) lending, etc.)		

The subject of innovative activity can influence on the deployment of innovation activities individually and (or) within those or other organizations and institutions. It is exactly at the level of the subject, the contradictions of the set of economic interests with respect to innovation activity are approaching the maximum solution. Coordination activity of the subjects of NIS towards harmonize economic interests by themselves is an integral part of the implementation of any innovation. The probability of fluctuation of the results of innovation in the range from the risk of ruin to the possibility of enrichment becomes the procedure for the discovery and development of such components of the creative potential of the subject of NIS which would remain unknown to anyone or, at least, unused without market competition

that facilitates to its self-realization and also to dissemination of interests and forms of innovative activity.

Based on the study, we can highlight general strategic directions of harmonization with the aim of satisfying firstly, personal interest, secondly, collective interest and thirdly, public interest. Of course, each of these strategies is characterized by relative autonomy.

Implementation of the first strategy focuses on ensuring the implementation of the personal economic interests, which initiates (or holds) personal innovative activities, reflects the dynamics of personal costs and outcomes, and, ultimately, the degree of satisfaction of the personal needs. The action of the second strategy influences on the implementation of the collective economic interests that initiates (or holds) the collective innovation activity, influences on the dynamics of costs and outputs, on the degree of satisfaction the collective needs. The third strategy should focus on balancing the reconciliation of personal and collective economic interests, or prioritizing one or another economic interest, depending on the chosen overall economic development strategy in the country.

In modern conditions, the development of the concept of NIS is connected with the study of the foundations of international innovation activities in the context of the internationalization of productive forces. An increasing number of international organizations, governments of the countries formally recognize the concept of NIS. It is actively used as the theoretical basis for the economic policy of states. In the conditions of the urgent need to form competitive innovative development strategies in the Ukrainian economy, this concept has not been neglected.

Today, within the framework of the concept of NIS, a large number of specific recommendations on the structuring, formation and implementation of innovation development policy have been defined, formulated, discussed and adopted. And despite of this, the ineffectiveness of the coordination of innovation activities in Ukraine, the weakness of strategic and tactical aspects of regulation the innovative activity at all levels of the national economy continue to be observed; low level of productive innovation actions of the innovative activity subjects; incompleteness, contradiction, fragmentation of legislative and regulatory regulation of scientific and innovation sphere, etc. The process of permanent improvement of theoretical and methodological foundations, polystructural reformation does not allow to consolidate the positive tendencies. Thus the opportunity to look at the result of the reforms disappears.

Conclusions and perspectives of further research. Economic interests of the subjects of innovative activity carry out a system-forming role in the development of the NIS.

The harmonization of economic interests of the subjects of NIS is the activity that is aimed at reaching an agreement about the forms, methods and guarantees of

the realization of their interests to ensure the innovative development of the national economy. The modern paradigm of coordination the relations in the country innovation sphere should take into account the transformation of the managerial rationalism towards the coordination of harmonization the interests of the innovative activity subjects of NIS. This in turn implies identification the spheres of economic interests interaction and concentration, contradictions between them, stimulation of striking an interests' compromise for ensuring a positive dynamics of innovation development etc.

A disparity between the stochastic dynamics of the business activity conditions and interests of the subjects of innovative activity at all levels of the economic system causes the need to adjust the procedures for their harmonization, development of flexible, adaptive forms of resolution of the contradictions that arose between them and stimulation of priority directions of innovative activity for the purpose of avangardization and modernizing the national reproduction.

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Алсуф'єва О.О., старший викладач, Національна металургійна академія України
Стратегічні пріоритети та сучасні завдання узгодження економічних інтересів суб'єктів НІС

У статті розглядаються теоретичні засади дослідження явищ узгодження економічних інтересів суб'єктів НІС. Виокремлено та проаналізовано альтернативні підходи до розуміння узгодження економічних інтересів суб'єктів НІС в сучасній економіці. Показано, що економічні інтереси суб'єктів НІС утворюють цілісну мережеву систему на основі привласнення факторів та результатів інноваційної діяльності. Розширено підхід до аналізу динаміки НІС від моделі «потрійної спіралі» до моделі «поліструктурної спіралі», що охоплює множину рівнів та секторів НІС. Запропоновано інтегративну інтерпретацію узгодження економічних інтересів суб'єктів НІС за різними сутнісними формами – як процесу, специфічної діяльності, сукупності відносин та сукупності інститутів і інституцій. Показано, що суб'єкти НІС приймають участь в узгодженні економічних інтересів як у специфічній діяльності, а певний стан їх узгодженості досягається завдяки взаємному впливу. Встановлено, що узгодження економічних інтересів суб'єктів НІС еволюціонує через розширення сфери свідомого впливу на суб'єктів інноваційної діяльності, а генезис зовнішнього впливу на узгодження полягає у русі від окремих форм до більш складних та комплексних, від формальних засобів впливу на суб'єкта як носія інноваційних потреб та інтересів до більш адресних, спрямованих на комплексне (синергетичне) його залучення до інноваційної діяльності. Суб'єкт інноваційної діяльності може впливати на її розгортання індивідуально та (або) у складі тих або інших організацій і установ. Саме на рівні суб'єкта наближаються до максимального розв'язання протиріч множини економічних інтересів з приводу інноваційної діяльності.

Ключові слова: узгодження, економічний інтерес, інноваційна діяльність, національна інноваційна система, поліструктурна спіраль, інноваційний розвиток.

Алсуфьева Е.А., старший преподаватель, Национальная металлургическая академия Украины

Стратегические приоритеты и текущие задачи согласования экономических интересов субъектов НИС.

В статье рассматриваются теоретические основы исследования явлений согласования экономических интересов субъектов НИС. Выделены и проанализированы альтернативные подходы к пониманию согласования экономических интересов субъектов НИС в современной экономике. Показано, что экономические интересы субъектов НИС образуют целостную сетевую систему на основе присвоения факторов и результатов инновационной деятельности. Расширен подход к анализу динамики НИС от модели «тройной спирали» к модели «полиструктурной спирали», охватывающий множество уровней и секторов НИС. Предложено интегративную интерпретацию согласования экономических интересов субъектов НИС по разным сущностным формам – как процесса, специфической деятельности, совокупности отношений и совокупности институтов и институций. Показано, что субъекты НИС принимают участие в согласованных экономических интересах как в специфической деятельности, а определенное состояние их согласованности достигается благодаря взаимному влиянию. Предложен перечень стратегических приоритетов и тактических задач гармонизации экономических интересов субъектов открытых НИС и направления гармонизации указанных интересов в условиях глобализации инновационного развития.

Ключевые слова: согласование, экономический интерес, инновационная деятельность, национальная инновационная система, полиструктурная спираль, инновационное развитие.

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