## Features of National Welfare Innovative Potential Parametric Indication Information-Analytical Tools System in the Globalization Trends' Context

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**Abstract.** In the article innovation-reproductive and rent-generating function of national welfare is exposed, necessity and real ways of national welfare innovative potential look-ahead analytical estimates methodology and tools' revision in a context of globalization trends are offered, complex analysis of the results of system parametristic indication of the strategy of national welfare development in the innovation economic growth interests on the author's set of instruments ground is conducted.

**Keywords.** National welfare, innovation as a new form of combining industrial, intellectual and social resources; innovation rent; information-analytical tools system

Key terms. National Welfare, Corporate Model, Spatial Strategy

## 1 Introduction

In a context of the modern economic development model the essence of national welfare is expressed in new aspects – it becomes not only the accumulated re-iterative reproduction process result, but also is converted into the integrated innovation-oriented economic growth resource-factor. This conversion is connected with world and national economic systems movement towards innovative «knowledge economy», competition gravity center transference to the science, education, innovative activity sphere, non-material actives role in economic reproduction process increasing.

The resource-provided countries have the export-raw model of economy. Their development may be characterized in comparison with other countries by the rough, spasmodic rate, mainly caused by considerable raw materials prices and economic instability. Such development is inevitably accompanied by the problems which brake economic modernization and its social and innovative orientation. On the contrary, the development of the countries which realize the policy of human capital quality,

national well-being, high technologies increment provides advantages in world socioeconomic evolution, raises competitiveness of national «intellectual» economy.

Increasing human development quality importance for economic growth generating and competitiveness initiated the mounting interest of economists to the subjective factor (the human capital) role in production progress. It gradually promoted the national welfare parameters (at first – the individual, especially economic; later – the social, public) inclusion into the economic dynamics resource supply research system.

The globalization accompanied by substantial capital mobility and national economies openness increasing transforms the national welfare economic content and display forms in reproduction process, modernizes its structure and functions in the conditions of transition to the innovative-focused economy.

These tendencies find reflection in the new long-term economic trend research methodology – the methodology which equally considers society and economy interests. The national welfare becomes the major productive forces element and the integrated institutional condition of the human capital reproduction.

The world financial-economic crisis, showing critical dependence of the national economies upon mobile global resources (financial, information, technologic resources) and, in particular, exposing the fact that the dynamics of the Russian GDP is still to a considerable extent determined by the external factors of the conjuncture, made topical the problem of finding internal, innovative resources-sources for development. The present situation requires the internal innovative resources of social-economic development, first of all, existing resources of the national welfare, the reserves of which in Russia are still unused in full due to the underdeveloped nature of the institutions of their conversion into competitive factors of production, active usage.

In this light, especial topicality is attributed to the issues related to technical-methodological analysis of the national welfare resources in the system of the global competitive resources, to determination of their role in the process of social innovative reproduction, conditions and mechanisms of their conversion into the innovative factors of production as well as integrated evaluation of the human capital of the country, its efficient usage and higher rate of innovation oriented development of the economic subjects and of economy overall.

The strategy of the economic subjects policies' economic-oriented modernization has to be based, due to the aforementioned facts, upon evolutional-cyclical, informational-innovative paradigm of the economic development theory and upon resource analysis, in accordance with which national welfare in the postindustrial society plays the role of an integrated resource for the innovative economic trends. One witnesses not only a different nature of the input of national welfare into the reproduction process, but its various composition, i.e. apart from traditional material elements, which have cost measurement (revenue level, volume and structure of the personal consumption fund etc.), greater importance is attributed to its social elements – level and quality of education of the population, level of its health, housing conditions, degree of security within the society, quality of the social-ecologic habitat, social capital, social-economic mentality, condition of general and spiritual culture in the society, set of the symbolic benefits etc., which do not have market cost and, often, which have the nature of social benefits, i.e. they create general social conditions for fulfillment of a person, for creative freedom.

In accordance with the above, the economic subjects' innovative social-economic policies have to comprise not only the innovative processes direct support strategies and mechanisms, but also person-oriented, comfortable general social conditions for innovation-oriented development of economy creation, realized in the form of welfare, better life standards and insuring efficient reproduction of the human capital [1].

Orientation towards bigger human and social capital and, consequently, bigger investments in the anthropo-social capital in the process of intellectual resources social reproduction as integral parts of the national welfare, constitute the basis for forming its innovative, resource-reproducing functions. It follows that the principal problem of continued innovative economic development consists of the national welfare into the innovation-initiating human and social resources – factors of production inherent to the "economy of knowledge" social-economic conversion mechanisms. Such the national welfare components institutional conversion into the innovative resources, human and social benefits economic composition is their comparative advantages (competitiveness) capitalization within the framework of countries' integration in the world economic relations, i.e. transformation of said advantages into the source of the added value and objects of the global companies, business, integrated structures, states innovative activities.

The innovative rent, which is received due to national welfare reproduction and its conversion into the innovative-intellectual production economic resources, constitutes an economic basis of the innovation oriented development. Within the framework of the cluster theory, "network economy" – the innovative economic rent plays the role of the result of the national welfare components, situated in the country, efficient usage. The variety of the innovative rent categories is due to different categories of benefits – resources of national welfare, which constitute the source of the rent formation.

The research is based upon such founders of the innovation-oriented economic development theory as D. Bell, A. Buzgalin, V. Inozemtsev, N. Kondratjev, S. Kuznets, B. Kuzyk, G. Mensch, B. Milner, R. Nizhegorodtsev, D, North, V. Ovchinnikov, J. Osipov, D. Tis, E. Toffler, J. Schumpeter, J. Jakovets etc.

The national welfare potential evaluating scientific basis of the welfare economy in the innovation-oriented development of economy system is considered in the works of the following authors: J. Bentham, S. Valentej, L. Walras, A. Marshall, L. Nesterov, V. Pareto, A. Pigou, A. Smith, J. Hicks, L. Erhard etc., who analyze the problems of the benefits value, of wealth formation, its distribution, conditions for market balance as a principal factor for social welfare, problems of harmonizing individual and social welfare judging by different criteria. D. Buchanan, J. Galbraith, J. Mill, W. Eucken, J. Rawls, V. Cherkovets, R. Ehrenberg etc. analyze a great number of social-economic factors, which affect the social welfare growth in the market economy.

Different aspects of the national welfare role identifying in the of innovation-oriented economic development system are researched in the works of P. Aguillon, R. Barro, A. Varshavskij, J. Vinslav, S. Glazjev, I. Diskin, J. Coleman, V. Kostjuk, D. Lvov, V. Makarov, N. Moisejev, N. Rimashevskaja, D. Rodrik, S. Rosefielde, K. Salomon, A. Sen, R. Solow, J. Stiglitz, M. Todaro, F. Fukuyama etc. Study of their works allowed specifying scientific interpretations of national welfare from the new institutional evolutional cyclical paradigm of economic development point of view.

The nature and specificity of national welfare systems functioning taking into account their correlations with innovative development of economy and its different institutional structures were researched by A. Auzan, P. Drucker, V. Ivanter, G. Kleiner, A. Prokhorovskij, V. Tambovtsev, F. Hayek, J. Jasin etc.

The methods of national welfare resources parametric evaluation are studied in the works of S. Ajvazjan, G. Becker, N. Zubarevich, I. Maslova, M. Mozhina, R. Nurejev, L. Ovcharova, V. Polterovich, J. Rjumina, A. Shevjakov etc. Applicable mechanisms and decision making technologies in the sphere of national welfare resource management are analyzed in the works of M. Baskova, O. Bogomolov, A. Dynkin, M. Musin, O. Pchelintsev, S. Rosenfeld, S. Sampler, V. Tretjak, T. Schultz, M. Jagolnitser, etc.

Theoretical analysis of such phenomena as "informational civilization" (R. Abdejev, S. Djatlov, M. Kastels, S. Parinov, F. Jansen), "national innovative systems" (K. Bagrinovskij, M. Bendikov, O. Golincheko, I. Dezhina, J. Lotosh), "intellectual capital" (E. Brooking, A. Gaponenko, M. Malone, T. Sakaya, L. Edwinsson), "cluster development strategy" (T. Anderson, A. Weber, M. Iversen, A. Isaksen, N. Kaljuzhnov, R. Kachalov, J. Christensen, B.-A. Lunvall, A. Ljamzin, L. Markov, N. Nagrudnaja, P. Nertog, L. Nesta, M. Porter, M. Enright) was also important for paper's conception making.

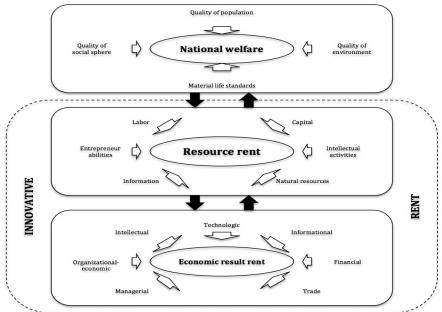


Fig. 1. National welfare as the innovative process rent-yielding factor

Acknowledging high importance of the aforementioned scientists research and noting the fact that there are fundamental approaches for exposing separate facets of the topic considered in this article, it is necessary to underline, however, that hitherto one has not realized an approach related to a complex evaluation of the national welfare as an integrated resource of the nation oriented economic development, one has not ex-

posed its innovative-reproductive function within the framework of involving into the economic system such factors as knowledge and intellect of the nation. Little practical research has been made with regard to the issue of modernizing mechanisms of its conversion into innovative economic resources.

Insufficient conceptual-methodological development of the resource approach to the national welfare analysis in the system of the innovation-oriented economic development; resource support of the innovation vector of economic development in conjunction with its theoretical-applicative topicality determined the purpose of the research.

## 2 Intermediate Results of Stages of Research

The purpose of the article is to form a methodological basis and to elaborate a theoretical-conceptual model and information-analytical tools system of the national welfare innovation-reproduction function, conditions, mechanisms and implements of using its resources in the interest of developing an innovative-economic system complex analysis. Achieving the set goal determined the necessity and logical sequence of solving a set of stage-by-stage theoretical-applicative tasks. The results of fulfilling said tasks could be formulated as follows:

- 1. Innovation-oriented development of the present day national economies within the framework of long-term global evolutional trends is more and more determined by the national welfare level and its dynamics. The national welfare resources accumulation induces higher volume and quality of human capital, higher labor efficiency, modernization and efficient innovation-oriented national economies development.
- 2. The national welfare structure encompasses not only traditional material benefits-resources characteristic for pre-industrial and industrial societies (real monetary revenue, volume and structure of the personal consumption fund, housing conditions, employment etc.), moreover, it includes new benefits-resources, having higher marginal utility (level/quality of education and health of the population, quality of the social-ecologic habitat, freedom of access to new technologies and scientific discoveries, social capital etc.). The definitive result of mentioned factors involving into the innovative productive cycle is revenue in the form of innovative rent creation which insures competitiveness of the entire production process.

The economic composition of such national welfare resources conversion is capitalization of their competitive advantages in the course of countries integration in the world market and network world-economic relations, especially, in the high-tech spheres, based upon high quality of the human capital, in other words, transformation of said advantages into the source of the added value and into the objects of global investment activities. Within the framework of the innovation-oriented dynamics, national welfare thus assumes the function of its resource-factor, increment of which within the world and state structure of social-economic relations becomes a key prerequisite for the innovative economic development trend.

3. Globalization processes exert contradictory influence upon economic mechanisms related to the national welfare resources usage aimed at the support of innovation-oriented development. On one hand, they broaden the innovative-economic space of the country and the possibilities of converting the resources of its national welfare

competitive potential into innovative-intellectual resources, on the other, globalization brings about an additional impetus for bigger inter-state asymmetry, polarization of the countries innovative development. Macroeconomic indicators analysis characterize the level of the countries integration into the global innovation-oriented economy, which showed a high level of interstate developmental inequity and lack of competitiveness of a set of components of the national welfare. This situation decreases the level of converting separate components of the national welfare into innovative economic development resources.

- 4. The national welfare resources accumulation-consumption (reserve-flow) values correlation is a distinctive indicator of the innovative reproduction process cyclical development. During stagnation, low rate of economic dynamics, accumulated national welfare is depleted (as the result of mobilizing its certain part in order to insure innovative economic growth), and during rise, high growth rate, the situation is opposite, national welfare is accumulated due to added national revenue, creating thus an integrated basis for a long-term incremental trend of social economic innovation-oriented development.
- 5. Greater role and larger scale of the economic development innovative factors change traditional perception of the classic stages of the modern expanded production. The stage of accumulating intangible assets factors of production, which create the innovative economy resource basis becomes the initial and principal stage in the new scheme of reproduction economic relations. This stimulates national welfare accumulation with the view of achieving higher productivity, fist of all, of the intellectual resources, of human capital, creation of the institutional habitat, beneficial for elaboration and distribution of innovations, and due to these factors higher rate of innovative economic dynamics.
- 6. The need to convert of the accumulated tangible and intangible national welfare resources into innovative development factors is embodied in the new priorities and strategies of the long-term state economic policy, in accordance with which the innovative growth of economy is due to observance of the principal of correlation and balance of the imperatives of economic efficiency, social justice and ecologic stability as the three principal criteria of the innovation-oriented reproductive development of a high aggregation level. Moreover, this includes the fact that the state innovative policy assumes a new objective function the function of balanced social-economic interests of the national, regional (local) and global economic subjects in the process of accumulation, reproduction and usage of the national welfare resources with the view of innovative growth.

Studies of the new model of subject-object relations in the national welfare reproduction system and conversion of its elements into resource sources for innovative growth showed that the "network reality" conditions makes topical the issue of elaboration of a collective strategy for the the national welfare development, in which the aspect of "co-operation" prevails over the aspect of "competition", and the classical model of the civil society, based on legal definitions of liberalism and market regulation, is replaced by the corporate community model (fig. 2).

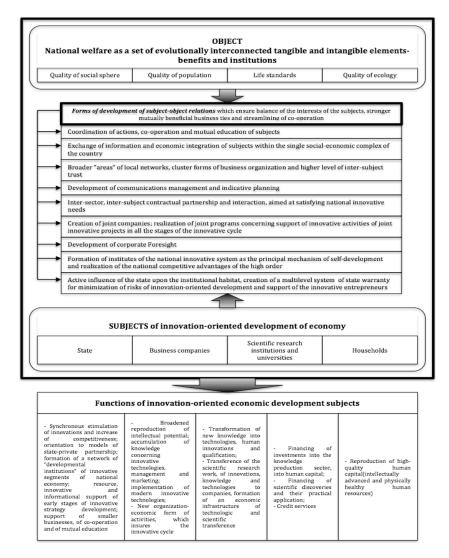


Fig. 2. Subject-object relations' conceptual model

Coordination and balance of the specific interests of innovation-oriented development subjects in reproduction of national welfare as a national benefit, based upon joint advantages, trust and state-personal partnership make one of the important methodological principles for the corporate strategy formation, which helps to optimize management and to achieve higher efficiency of national welfare usage with the view of national economic growth. Determination of the ideal "hierarchical chain" of interests of the economic subjects and orientation of the adequate stimulation policy towards it is one of the alternatives for realizing the coordinative methodological principle.

7. The national welfare resources inclusion into the economic asset balance of the country signifies their interpretation as a source for added value in the long-term innovative cycle of economic dynamics.

The most adequate approach to economic evaluation of tangible and intangible components of national welfare is a modified variant of the Hartwick-Solow principle, in accordance with which it is necessary to consider the innovative rent as the principal source of the national revenue, a part of which is channeled into national welfare accumulation, that brings about a higher resource potential of the long-term innovation-oriented economic development – it is re-invested in better quality of the human capital and amelioration of the social-ecologic conditions of its reproduction (education, healthcare, fundamental science, social infrastructure, lower environment pollution).

- 8. Rent revenue, which is received due to efficient usage of the new categories of intangible benefits informational, innovative, infrastructural, intellectual benefits that directly insure reproduction of human capital, play a greater role in the national economies innovation-oriented modernization of national economies. As it is shown by the analysis of said processes in Russia, taking into account the existing institutional deficits, underdeveloped nature of venture business, lack of a systematic, high-quality network habitat, favorable for diffusion of innovations and weak interest of the economic subjects in their elaboration and implementation, capitalization of the present innovative potential of national welfare (infrastructural, educational-intellectual, informational welfare) is rather difficult, whereas innovative rent is gained only in separate, isolated cases. As the result a considerable part of the existing tangible and intangible national welfare resources, fist of all, intellectual and human resources, is not capitalized. This fact brings about a lower competitiveness of the country.
- 9. Need to indicate and insure elaboration of the national welfare components conversion into innovative economic resources mechanisms presupposes analysis and evaluation, to be executed in the state management system, regarding the level and dynamics of reproducing its four components quality of the population proper, material life standards of the population, quality of the social habitat and quality of ecologic state of the natural-economic complex. Complex evaluation of the aforementioned four components of the national welfare with the view of achieving innovative economic growth is based methodologically upon usage of sophisticated theoretical-analytical set of implements including a set of formalized methods and models of determining latent connections between national welfare and innovation-oriented economic growth (which form a unity of the innovative reproduction process) as well as evaluation of the innovative effects due to a higher level of converting different national welfare components into factors of innovative growth.

The elaborated set of implements allows to analyze efficiency of the existing national welfare resource structure, to expose its limiting components and to form on this basis a strategy for a long-term economic policy, aimed at development of institutions, which increase national welfare resources competitiveness and the level of their conversion into productive sources of innovative economic growth.

A distinctive feature and advantage of the elaborated model set of implements is the possibility to use it in order to accumulate analytical information regarding the results and parameters of economic, social, ecologic strategies related to accumulation and increment of the national welfare resources with the view of achieving a higher national economic dynamics and to thus provide (as opposed to the traditional implements) a more adequate evaluation of the mechanisms used in the state economic policies related to support of the innovation-oriented economic development trends (figure 3) [2].

10. Diagnostics effected on the basis of the set of implements with regard to the national welfare as an integrated resource of innovation-oriented economic development of Russia state-of-the-art within the global coordinates framework (figure 4) and integral innovative effect of its increment showed that due to realized innovative welfare management strategies (including strategies of a higher level/quality of education and lower sickness rate of the population, higher buying power of its monetary income per person and lower level of poverty, development of the social infrastructure, higher social-territorial mobility and level/conditions of employment of the population, development of smaller business and greater freedom of entrepreneurs, creation of a dynamic information infrastructure and better access to technologies and science etc.), the indicators of the Russian economy subjects may be increased approximately by 1.5 times mostly by means of better social sphere quality [3].

The innovative effect due to national welfare increment and its transformation into innovative economy resources indicators: level of economic subjects' innovative activities, level of conversion of national welfare into innovative growth competitive factors, innovative rent capitalization level are the key parameters which characterize the proportions between accumulation and consumption of the national welfare resources state policy.

The quotients, calculated (with regard to Russia) with the view of proposed structural model empiric verification and reflecting the dependence between the dynamics of the innovative activity of the economic subjects parameters and the parameters of the national welfare resources (average expected lifetime, GDPPPP per person, Gini index and ecologic stability index) showed that, within the integrated effect indicator among the four basic components of national welfare, greater importance is held by the social sphere resources which reflects the priority of social, socially-advantageous benefits – social capital accumulation sources reproduction. These sources are characterized by such important properties from the point of view of the innovative growth as: positive network effects and their higher marginal utility in the course of their use; therefore, the level of the national welfare resources into factor sources of innovative growth conversion greatly depends upon the state of the social sphere – the elasticity quotient was 1.724 and the correlation quotient was 0.671, then, following the order of lower dependence one has the ecologic habitat quality - accordingly 0.463 and 0.324, quality of the population – 0.137 and 0.393 and the material life standards – 0.057 and 0.442.

Module 1. Formation of the indicative methodic basis and evaluation of national welfare as an integrated resource of innovation-oriented economic development

#### Module 2. Evaluation of integrated innovative potential of national welfare

Elaboration of a statistic-dynamic model for evaluation of integrated innovative potential of national welfare within the framework of quality of population, material life standards, quality of the social habitat and ecology

Indication of the modern level of conversion of national welfare into factors of innovative growth within the system of global and local coordinates

# Module 3. Evaluation of increment strategy of integrated innovative potential of national welfare

Evaluation of structural-functional models of conversion of the accessible level of national welfare into innovative growth spheres

Justification of strategies of increment of the national welfare resources within the system of innovation-oriented economic development

Development of scenario model of national welfare innovative potential integrated development in order to insure innovative economic growth



Formation of institutional mechanisms for realization of the national welfare innovative potential development strategy in order to insure innovative economic growth

Fig. 3. Model set of implements for state strategy' analytical evaluation

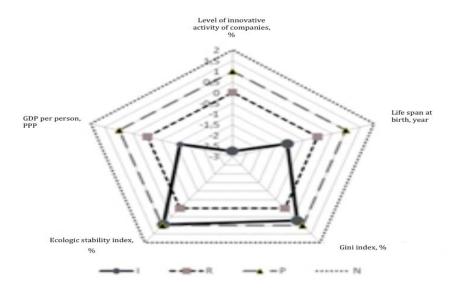


Fig. 4. National welfare state-of-the-art estimation

11. In the course of interregional comparison of the conditions and existing limits for realizing the policy of state national welfare resources reproductive proportions between accumulation and consumption optimization, one detected a domineering correlation between the economic subjects innovative activity indicator and indicators of the achieved level of conversion. The calculations effected by the author according to special methods showed, in particular, the following typology of dependence of the features of the economic subjects innovative activity on the parameters of domineering kinds of national welfare resources (social sphere resources) into innovative growth factors conversion which determine the priorities of the long-term state economic policy: for an economy, which is characterized by a low, medium, high fully realized dependence of the features of the economic subjects innovative activity upon the parameters of the social sphere resources conversion, priority belongs, therefore, to the strategy of developing social infrastructure and higher level/quality of employment of the population, strategies of developing smaller business and greater freedom of entrepreneurs, strategies of easier access to scientific achievements and to new technologies, information infrastructure development (figure 5). The detected innovative effects indicate the priorities of the social-economic policy, in which the main role belongs to investments into the innovative national welfare resources: housing conditions, social and information infrastructure, science, education, healthcare, culture etc.

### 3 Conclusions

The obtained results show that due to social conditions, factors and motives of behavior more important role, social capital resources greater importance, it is necessary to elaborate a harmonized systematic program of innovation-oriented long-term economic policy modernization and to create a favorable social-economic climate in the country on the basis of the existing national welfare.

The systematic approach means a reconsidered hierarchy of social-economic priorities within the framework of the person oriented innovative economic growth paradigm. In this light the state has the following tasks of paramount importance: amelioration of the overall conditions of employment and population housing, recreation of the salary reproductive function (first of all, on the basis of adequate evaluation of the level/quality of education); accelerated development of the intangible investment complex and social infrastructure, realization of human-saving social programs; consistent industrial policy which would activate innovative activity mechanisms and socially responsible behavior of the corporate subjects which are capable of making their contribution into development of national welfare and human potential of the nation.

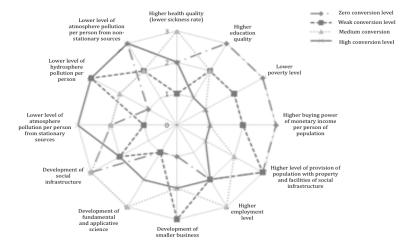


Fig. 5. Spatial strategic "developmental crystal" of Russian national welfare

In the present situation efficient mechanisms of balanced innovation-oriented economic development may be formed only on the basis of the state, civil society and business integrated efforts in order to achieve consistent expansion and rectification of opportunities for the representatives of different social, professional and territorial population groups via reproduction of the national welfare resources as a social benefit. This has to be reflected in the system of innovation-oriented long-term social economic development strategic management.

The national welfare resources will be realized in an efficient way within the framework of an innovative economy, only if there is a stable need for them from the reproductive process. The strategic task is to bring about long-term correlation of the national welfare resources demand and supply in the innovative development of the economy.

The developed theoretical analytical tool allows to evaluate not only efficiency of accumulation and usage of the national welfare resources, moreover, it makes possible to determine the innovative effect due to a higher level of their conversion into the sources of innovative growth.

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