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## The economic security of the state: the institutional aspect

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### Abstract

In recent years the problem of economic security ensuring is characterized by new aspects of its theoretical content in connection with the institutional transformation of the Russian economy, which is essential condition of its modernization. Trends and patterns determining institutional ensuring of economy modernization are an essential aspect of economic security.

Scientific substantiation is required by modern problems of economic security ensuring, the prevention of new challenges and threats of economic security and sustainable development of the regions. At the present time, there is a search of new conceptual approaches of methods and mechanisms formation which can protect the economic interests of the State, regions, enterprises and organizations, public and business sectors, which finds its expression in the strategy of socio-economic development of the Russian regions.

The multifaceted and interdependent nature of changes which we have in modern socio-economic system causes a need for the formation and implementation of the institutional approach in complex security economic problems solution. In modern conditions the process of the economy reforming actively manifests itself in the need to ensure the vital interests of the society, the balanced condition of economy, dynamic socio-economic development. The urgency of the economic security problem and, accordingly, its institutional ensuring set of measures depend on the level of national economy development.

The article reflects the institutional features of the economic security ensuring of the State in the face of instability and the emergence of new threats associated with the cyclical nature of the economy. The main factors of economic security and its institutional contradictions are considered. The problems of economic security of Russia and its main course of sustainable development are defined. A comparison analysis of economic safety of Russia at the international level has been carried out. © 2015 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

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### 1. Introduction

Economic security is a complex socio-economic category which is influenced by the continuously changing environment of material production, external and internal threats of the economy. Economic security is a basis of the national security of the State. The national security ensuring is a primary responsibility of the State, which is being implemented in close collaboration with the economic agents. The national security reflects the ability of relevant political, legal and economic institutions of the State to protect the interests of its key entities in national economic traditions and values. Therefore, its development must be seen in the overall context of the formation of the national security state (Litvinenko, 2013).

For the State, there is no absolute economic security, when there are no types of external and internal threats to the national economy. The main factors of economic security of the country are its geographical location, natural resources, industrial and agricultural potentials, the degree of socio-demographic development, the quality of public administration. Russia, the United States, Japan, China, including the European Union, take a leading position in the world of the industrial potential, the volume of agricultural production, natural resources and they have an unbeatable geographic position that contributes to their economic security (Grigoreva e., Fesina e., 2013). However, they differ sharply on the parameters, as well as the nature of the State and of economic regulation.

It should also be noted that there are new aspects of economic security which are related to features of Internet

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technologies impact on the economy.

Now there is an emergence of the network economy on the basis of e-commerce and e-business technology. (Ismagolov I.I., 2012). This process must be taken into account in the development of the economic security of the State.

## 2. Literature review

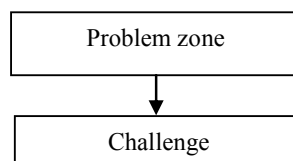
To assess the economic security of Russia there is used a system of indicators that reflect its place in the world economic system (Ranjan R, Ngai Weng Chan, Ruslan R., 2013). They reflect the gap between the indicators that characterize the proportions of territorial space and natural resource potential, and, on the other hand, financial potential, gross domestic product and foreign trade and, above all, the level and the quality of the population life. Over the past 15 years in Russia were made bad the imbalance on many indicators, particularly on the social. Comparison of actual values of economic security indicators of States with their thresholds, describing various aspects of the national economy security, provides an indication of the individual components evolution of economic security at the international level and in some cases their comparison. It raises the problem of determining the cumulative index of economic security to evaluate its performance and to conduct comparative description on an international scale. In the economic literature (Butorin V.K., Tkachenko A.N., Shipilov S.A., 2007) there is a methodological approach that is based on the definition of the normalized values as for appropriate threshold levels of private indicators of the State economic security. This assumes that the smallest possible value  $\hat{i}$  of the normalized private indicator  $\beta_{i \min} = 0,01$  is the least level of economic security of the State at fixed values the rest of private indicators-indicators. And, vice versa, the largest possible value  $\hat{i}$  of normalized private indicator  $\beta_{i \max} = 100$  corresponds to the highest level of economic security of the State at fixed values the rest of private indicators-indicators. The unit value  $\hat{i}$  of the private indicator corresponds  $\beta_{i \max} = 1$  to the normalized threshold level of economic security of the State.

The results of standard private indicators calculations characterizing the individual components of the economic security of the national economy of Russia, the United States, Japan, Germany, Britain, Italy, South Korea and China for 2000-2012 years, allowed assessing of various levels of economic security of those States (Ismagilov R.F., 1999). Methodological approach to assess the level of economic security allows, on the one hand, to assess the changes in the economic security of the State as a whole, and on the other, to compare levels of economic security and national economies of various countries. Calculations of General normalized indicators of economic security of Russia, the United States, Japan, Germany, Britain, Italy, South Korea and China for 2000-2012 years have shown that they are quite adequately reflect the phenomenon and the process of combustion taking place in the economies of those countries and in the world economy as a whole (Gus'kova N.D., Neretina E.A., 2015). In particular, the change in the level of economic security in these countries shows the reduce of their economic development in the years of economic crisis and rise in periods of favorable situation for the development of the national economy.

## 3. Research

Analysis of world economic relations development trends, scientific and technological progress in the economy, the world integration interactions and the impact of these processes on the economic basis of the National Security Commission of the world community countries allows to highlight key factors of their economic security ensuring (Reshetova M.V. Krutik, A.B., 2011). The evaluation of the national economy security of the country is impossible without the definition of retrospective, current and forecast levels of its economic security.

The General Security factors at the micro-level can be classified into three groups: natural and ecological, technogenic-productive and anthropogenically-social. Then the structure of the general security of an entity at any level of the hierarchy would look like the following (Figure 1).



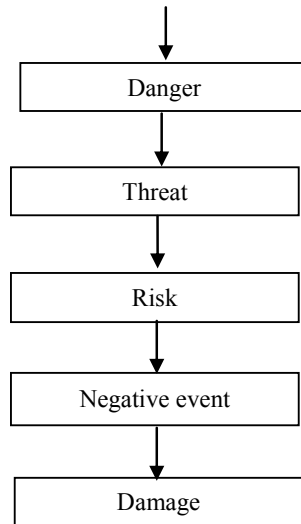


Figure 1. The hierarchy of levels and types of general safety factors

The integrated indicator of the overall security of an entity can be defined according to I. Petrenko’s methodology (Petrenko as I.N., 2006), aggregating its safety performance of base-level security by using the expression 1:

$$z_{general} = \sum_{i=1}^3 \alpha_i z_i \tag{1}$$

where:

$i = 1, 3$  – the number of basic level security sphere, which includes:

$i = 1$  – natural-ecological sphere;

$i = 2$  – technogenic-industrial sphere;

$i = 3$  – antropogenic-social sphere ;

$\alpha_i$  – weighing coefficient  $i$ -of basic level safety indicator;

$z_i$  – safety indicator  $i$ -of basic level sphere.

Safety indicator  $z_i$  of each  $i$  basic level sphere of business entity is determined by combination of  $m_i$  safety indicators  $y_{ij}$  of integral level (in economy, policy) with the expression 2:

$$z_i = \sum_{j=1}^{m_i} \beta_{ij} y_{ij} \tag{2}$$

where:

$m_i$  – quality of integral level safety indicators which are included into formation of basic level safety (aggregate) indicator  $z_i$  ;

$j = 1, m_i$  – number of integral level security sphere;

$\beta_{ij}$  – weighing coefficient  $J$ -of integral level safety indicator;

$y_{ij}$  – safety indicator  $J$ -of integral level sphere.

This methodological approach to assess the overall security at the micro level excludes debate about the critical "marginal" values of thresholds indicators of economic security, because the integrated indicator of overall security

is formed from a set of indicators and their weights and it is a dynamic feature of the overall security of an entity. The threshold values of economic security indicators are very critical of their values and act as reference levels.

Some researchers believe that in calculating the rate of the State national security its threshold values are the average security indicators (Tumin V.M. Koryakov A.G., Nikiforova Ep, 2013). For the Russian Federation regions values of separate thresholds indicators are Russian average security indicators. Using as an average weighted threshold values of safety parameters at the micro level is proved only in the case of need to clarify their position (rating) in the group.

The national security strategy of Russia till 2020, (Senchagov, V.K., Gubin B.V., Ivanov e. A, 2012), which is approved by the Presidential Decree No. 537 May 12, 2009 includes the following status indicators of national security:

- unemployment rate (the share of the economically active population);
- decile coefficient of differentiation (ratio of 10% income of more and the 10% of less well-off population);
- the rate of growth of consumer prices;
- level of public foreign and internal debt as a percentage of GDP;
- the level of sustainability of health, culture, science and education as a percentage of GDP;
- the level of annual updating of weapons, military and special equipment;
- level of military and technical personnel.

The strategy States that the list of key indicators of national security can be refined according to the results of the State national security monitoring . In our opinion, this list is only a guideline for the assessment of the national security of the Russian Federation, because it includes only aggregate indicators, especially as their thresholds in the strategy are not given to the comparative characteristics of the produced estimates. Actual and thresholds indicators, reflecting the main features of the national interests of the Russia are presented in table 1.

Table 1. The threshold and the actual values of the economic safety indicators of the Russian Federation in 2013.

Indicator	Threshold value	Actual value
GDP volume, billion roubles	29200	21665
Engineering production share in industrial production volume , %	25	22,2
Grain collecting, million, tons	70	78
Fixed capital expenditure, % to GDP	25	15,8
Share of shipped innovative production in all industrial production, %	15	3,3
Relationship of mineral reserves gain to absorption volume of reserves in depths , %	125	on most types – less than 100
Federal budget expenditures for national security, % to GDP	3,0	2,6
Expenditures for citizen science, % to GDP	2,0	0,3
Share of population with income which is less than the cost of living of population number , %	7,0	15,8
Ratio of average cash income of population to the level of the cost of living, times	3,5	2,8
Ratio of 10 % of more well-being population( income) and 10 % of less well-being population(funds coefficient ) , times	8	14,9
Unemployment rate on ILO(International Labor organization) methodology , % to gainfully employed population	5	7,7
The level of monetization(M2) to the end of the year, % to GDP	5	25
Gold and currency reserves volume to the end of the year, billion. dollars.	40	182,2
Internal and foreign national debt, % to GDP at the end of the year	60	16,1
Ratio of foreign national debt serving expenditures to total volume of federal budget expenditures , %	20	4,6
Inflation rate, %	125	110,9
Federal budget deficit, % to GDP	3,0	budget surplus

Indicator	Threshold value	Actual value
Supply share, that is imported, in total volume of food supplies, %	25	40

According to the table 1 the values of certain indicators (inflation, budget deficit, public debt) were lower than the threshold values and the volume of gold and currency reserves exceeded several times the threshold level. If the level of monetization correspond to marginal indicator, and was not less than half of it, it could be found on the improvement of the financial position of Russia. Otherwise, it shows the weakness of the banking sector of the country, disbelief of investors, weak disposition of population to organized forms of savings and weak development of cashless payments (Grigoreva E.A., 2010). This is manifested by the presence in the analyzed period of economic and political risks in the investment area.

The Security Council of the Russian Federation approved the official list of socio-economic indicators of economic security, reflecting the critical points of the development of the Russian economy (Prokopov B.I. disease management, 2008).

Indicators describe the limits, going out of which impedes the normal development of the economy and the social sphere and leads to the formation of destructive trends in the national economy of the country. Thresholds values of the Russian Federation economic security have a status of approved or confirmed quantitative parameters at the State level, which should be an integral part of governmental forecasts and programmes of socio-economic development.

Russia is integrated into the world economy, particularly as its raw materials appendix (Statistical Yearbook., 2014). In 1980, the Soviet Union had produced 10% of the world's oil and gas. The share of fuel and energy resources in export for 1961-1985 increased from 16.2% to 54.4%, but revenues were not used to go to the postindustrial innovation economy. In the 50-60 's. great damage was done to the instrumentation, electronics, machine tools spheres. The share of a complex technology in the Soviet Union export those years had fallen from 20.7% to 12, 5%. According to Rospatent in 2012, the intellectual property was more than 60% of the US GDP, but less than 1% of Russia's GDP. Research intensity of the transport engineering in leading foreign countries (the ratio of expenditure on research and development work to total sales) in 2012 exceeded the 7%, in Russia-0.01% in 2012 and 0.25% in 2013. The share of Russia in the world market of high-tech production in 2013 was only 0.5% (Statistical Yearbook., 2014). This leads to the need of the global economic security assessing, which, in our opinion, should be assessed by using the values in table 2.

Table 2. Comparative characteristics of the Russian economy security indicators with highly developed countries in 2013 r., %

Indicators of economic safety	Russia / USA	Russia / EU	Russia / Japan	Russia / the whole world
Territory	174,0	683,6	4525,3	3,0
Population	47,1	45,1	111,2	2,2
GDP	9,3	10,6	29,4	2,4
GDP on rouble purchasing-power parities (PPP)	15,1	20,3	48,7	3,2
Oil production	145,1	«no information»	«no information»	12,2
Oil reserves (proved)	270,1	9925,0	«no information»	6,4
Gas production	111,3	693,0	«no information»	20,7
Gas reserves (proved)	747,0	19756,1	«no information»	25,2
Forest resources	186,0	651,5	1894,1	20,1
Clear-cutting of a forest	33,3	73,3	805,9	5,8
Wood production and logging	10,4	18,3	69,1	3,1
Export of goods and services	23,4	7,7	31,6	2,3
Import of goods and services	9,3	4,9	28,8	1,4
Gold and currency reserves	676,1	93,5	49,1	8,8
Revenues of consolidated budget	12,0	9,1	«no information»	«no information»
Expenditures of consolidated budget	9,3	7,7	«no information»	«no information»
Banking system assets	7,0	2,3	11,6	«no information»
Fixed capital expenditure	11,8	14,0	24,7	«no information»

From the table 2 it follows that in their highest value on the size of territories and natural resources, gas, oil production, forest resources in Russia in comparing to the United States, EU and Japan is less GDP data , including per capita. It shows that in the system of internal economic security of Russia laws of harmonious development , principles of equitable distribution of public wealth and income are broken(Ankudinov A.B., Lebedev O.V., 2013)..

#### 4. Results

The strategic goal of Russia development in the long-period is its turning into one of the leaders of the global economy, entrance of the country to the level of developed post-industrial countries. The implementation of this goal means achieving standards of welfare which correspond to the level of the developed countries (average per capita GDP to 20-30 thousand dollars), as well as providing scientific and technological leadership in the competitive advantages and the Russian national security formation (Grigoreva E.A., 2011).

In the economic literature the same question of the Russian economy industrial structure dissatisfactory was raised many times. (Glukhov E.V., Glukhov Was, 2013). Fuel and commodity orientation of Russian production and exports is threatening stability of functioning and development of the economy. Fuel and commodity orientation of Russian production and exports is threatening stability of functioning and development of the economy. The predominance in the economic structure of the manufacturing industries is because of their ensured high capacity of the sustainability and profitability of production. It is because of the following reasons:

- significant species and quality diversity of products;
- abundant and flexible modes of production;
- relatively high mobility of capital;
- freedom in the choice of the type of activity and the geographic distribution of enterprises;
- more high added value on the cost elements and consequently greater productivity of the invested capital.

In machine-building and chemical industries there are promoted new high technology products: production of computer and laser technology, automation, equipment for atomic engineering, microbial drugs and materials. In the United States these knowledge-based industries represent over 50% of the total output of the manufacturing industry. In Germany, France, Great Britain, Italy, it is from 35 to 40 per cent (Feofilova T.Y., 2012). In Russia the share of education of manufacturing industries and industries that define the scientific and technological progress, not only lags behind the developed countries, but also has decreasing tendency. (Garifova L.F., 2010).

In 2013 in the sectoral structure of Russian industry per electric power industry share there was 9.3 per cent of the fuel complex -18.4%,metallurgy-18%; Union of wood, pulp and paper-4.7%; chemical petrochemical-9.6%; machine building and metal processing-18.1%; light and food-18.1%. The same structural distortions are observed in exports. Russia accounts for more than 10 per cent of world exports of crude oil, 50% natural gas, 33% of tin ore and more than half of tungsten ores and concentrates, niobium, tantalum, vanadium (Granberg A.G., Danilijan-V. I. Danilov et al., 2002).

In manufacturing industries there has been a significant drop in the production and sale of industrial and household equipment, as well as chemical, light and food industries. According to Rosstat in 2013 from 406 basic industrial products manufacturing industries due to the decline in production was fixed on 386 items (more than 90% of product groups). So, if at the beginning of the 1990 's. Russia produced 53 thousand of mechanical equipment, 137 thousand of agricultural machinery, 4319 thousand (pieces) of vacuum sweepers, 4015 thousand of radio receivers, in 2012, there were produced respectively 8.7 thousand, 8 thousand, 770 thousand; and 249 thousand. (Statistical Yearbook., 2014). The figures indicate that the structure of the material production steadily increased the proportion of share of the fuel and energy complex, metallurgy, but the mechanical engineering and industries operating in the domestic market is decreasing. As for the proportion of new industries-micoelectronics, information technology, bio-and nanotechnologies, they still occupy an insignificant place (9.8%, against 87.3% in developed countries). With such sectoral structure of the economy it is unlikely to overcome the boundary lines between industrial and postindustrial society.

Another structural problem of the Russian economy is a low level of diversification. In highly developed countries, the number of sectors and industries in engineering reaches 150-200, while in Russia this rate does not exceed 10-15 (M.R. Safullin, L.A., Shakirova Elshin A.I., Ermolaeva P.O. Prygunova, M.I., 2013). Thus, we can conclude not only about continuing lag of

branches of the Russian economy structure from the leading countries of the world, but also for its extreme volatility influenced by market fluctuations.

## 5. Conclusion

Structural backwardness of the Russian economy causes its instability and limits possibilities for further development. Return on mineral raw materials and energy products sales is completely determined by market conditions and doesn't depend on manufacturers efforts. It means, that changing the economic situation in the world, discovering of huge fields outside of Russia, a technological breakthrough in new construction materials and fuel sources using, development of resource-saving technologies could lead to mineral resources demand reducing and involve a significant drop on their prices. (Vorobiev A.E., Balykhin G.A., Komashenko V.I., 2007). Thus, the problem of structural modernization of the Russian economy is a priority in the competitiveness and the economic security ensuring of the country. .

The national security concept of the Russian Federation stated that the threats in our economy are complex. They are determined by country's scientific and technical and technological potential weakening, economic disintegration, social differentiation of the society, the devaluation of spiritual values, the criminalization of social relations, rising terrorism and organized crime. (Senchagov, V.K., Gubin B.V., Ivanov E.A., 2013; Granberg A.G., Danilov-Daniliyan V.I. et al, 2002). However these threats aren't completely revealed in it, that's why it is difficult to define their concrete boundaries, acuity and work out a unified state approach to their neutralization. The national security concept of the Russian Federation also does not reflect the major threats of the economic development of the regions where the criminalization of the economy is becoming catastrophic.. In particular, it does not review the economic and tax crime, shadow economy, grey labour market.. Since the adoption of this document economic, social and political situation both in Russian regions and the world has changed significantly. It means that the criteria of economic security remains constant, as contributing to the maintenance of the status of the vital interests protection of the national economy and the population. However, factors and circumstances of economic security are constantly changing, reflecting the transformation processes of the Russian economy, which leads to the emergence of new threats and dangers in the socio-economic system development.

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