

**INSTITUTE OF WORLD ECONOMY AND INTERNATIONAL RELATIONS
RUSSIAN ACADEMY OF SCIENCES**

Economic Security Problems in the Euro-Atlantic Region

**(Situation Analysis Findings within the Euro-Atlantic Security
Initiative
Moscow, 29 June 2010)**

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Scientific editor Academician Alexander A. Dynkin

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This collection, *Economic Security Problems in the Euro-Atlantic Region*, is based on the findings of a situation analysis undertaken within the Euro-Atlantic Security Initiative, the EASI. The EASI project was initiated by the Carnegie Endowment for International Peace, and is carried out by a group of prominent politicians and experts from Russia, the U.S.A. and Europe with the aim to draw up proposals for new security architecture across the Euro-Atlantic space. The main partner in Russia in this endeavor is the IMEMO RAN. All participants in the project view the solution to the problem not through the prism of the Russia-West relations, but, rather, within the context of threats to security common to all. This approach makes it possible to promote more efficiently Russia's vision of all-European security. Russia's President and Foreign Ministry have supported as a useful initiative both the EASI project and Russia's participation in it.

The present collection is another in a series of publications in Russia sponsored by the IMEMO and EASI. It examines methodological and conceptual aspects of economic security in the Euro-Atlantic region, and analyzes differences in the approaches to the idea of economic security. The collection also features theses of leading Russian experts regarding key issues of economic security.

Compiled and edited by Irina Kobrinskaya

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Economic Security Problems in the Euro-Atlantic Region.

Summary of the situation analysis¹

The situation analysis was organized by the IMEMO RAN as part of the activities of the Working Group for non-military (economic, energy and climatic) threats to security (headed by Academician Alexandr A. Dynkin), the Euro-Atlantic Security Initiative Commission. The situation analysis involved general methodological issues, and also general aspects of economic security and specific points of its energy-related, environmental, climatic, demographic, food supply, institutional, and other dimensions.

1. General Methodological Issues

The experts identify the following three main approaches to the study within the project:

- an integrated survey that covers all essential aspects of security: military-political, socio-economic, information and communications, environmental-climatic, and others in internal and external dimensions;
- unity of study across the region: considering threats and means to deal with them not at national levels or within blocs or alliances, but on a regional Euro-Atlantic scale;
- a prognostic approach: treating the problems not just in the context of the present-day reality, but with a view to their possible development into one or another threat in the Euro-Atlantic region. .

The aim of the brain storm was to identify the problems requiring synchronized or joint solutions in the current decade (if possible, also in a longer run), and to come up with proposals for organizational or cooperative regional Euro-Atlantic structures aimed to prepare and fulfill these decisions.

In a condensed form, the cooperative approach has been reflected in the interpretation of the notion "Euro-Atlantic security" that differs from the notion "security in the Euro-Atlantic region". The gist of the difference is as follows. On the one hand, it is acknowledged that the problems that all countries face in the realm of military policies and the economic and social spheres often differ, and their vectors diverge from one another (like, for example, Russia's and the EU's interests in energy supplies). On the other, if we compile a list of these problems and make certain comparisons, we can make proposals for their cooperative solution by joint effort of the U.S.A., Europe and Russia. This cooperative approach is important from the point of view of the interests of all participants. Even though it does not meet absolutely all the interests of absolutely all participants, with competition between them continuing, it nevertheless offers a cooperative solution to coinciding problems common to all over the Euro-Atlantic space.

For all the rather akin interpretations of the notions "challenges", "problems", "risks" and "threats" with regard to security, certain differences have been detected in the approaches: from actually identifying these notions with one another to practically scrapping the notion "risk" and emphasizing only "challenge" and "threat". Furthermore, they also offer an interpretation of "risks" as a natural midway stage in the transformation of potential challenges into real threats to security.

¹ The summary was prepared on the basis of a verbatim report of the discussion, statements by participants and theses of the authors included in the present collection.

"Challenges to security" are understood as deliberate actions by individual and institutional agents and also other events and processes that under certain conditions may obstruct realization of key interests in the political and economic spheres. In the event of absence or weakness of mechanisms that should respond to challenges, an emphasis is laid on the "threats to security" associated with a real possibility of difficulties arising in achieving the desired priorities. Therefore, absence or weakness of mechanisms to respond to challenges becomes a *factor actualizing threats*.

The experts confirmed their common view of the geographic dimensions of the Euro-Atlantic space. It includes the U.S.A. and Canada, and the EU (complete with EU candidates and non-EU countries members of the European Economic Area), on the one hand, and Russia, CIS countries and Georgia, on the other. They are brought together on the basis of both similar civilizational origins and projections into the future. This involves a common tradition over the Euro-Atlantic space rooted in the ancient Greek and Christian civilization and associated with common values and aesthetic standards, and, furthermore, a common secular modernizational orientation. In this connection, considering socio-economic, political and confessional features characteristic of Central Asia, part of the experts maintain that it should be identified as the separate "Euro-Atlantic Sub-Space" or "sub-project" within the overall scope of work.

2. Key Issues of Economic Security

2.1. General Notions. In the interpretations of the notion "economic security" at regional levels, for all the consonant positions in the main, there were certain substantive differences in the approaches. Part of the experts proceeded from a broader politico-economic and national-state interpretation treating economic security of a state as "a situation where the national economy is protected against domestic and external threats, and where the economy can provide for steady development of society, its economic and socio-political stability in the conditions of unfavorable pressure of external and domestic factors." There were others, who highlighted the socio-political aspect, maintaining that the key criteria, the nucleus of the notion "security", was immutability of the constitutional system (including immutability of constitutional and "supra-constitutional" institutions, the values that are important for the constitution to be effective), and the country's territorial integrity and sovereignty.

A more integrated interpretation of "economic security" at a national and regional level views this notion as a condition for stability of economic development, on the one hand, and the economic aspect of military and political security, on the other.

Most of the experts supported the idea of synthesizing these two approaches into the notion of "economic security as an economic dimension of the problem of social stability and military-political security". In both cases it is a matter of viewing the notion of security in the context of *providing basic conditions for realization of those key interests in the political and economic spheres, regarding which there is a reliable consensus in the national or international political system.*

This type of interpretation implies that regarding the threats to security they only take into account the kind of endogenic and exogenic factors that practically bear upon the "basic conditions for realization of key interests", that is, they *call into question the very functioning of relevant political and economic systems*. Thus, it is only the danger of driving the economic system into inoperability and system failures, and interruption of

its functioning that is regarded as a threat to economic security. This rules out any possibility of extended treatment of any economic shocks (for example, caused by cyclical processes in the economy) as "threats to security".

2.2. *Key Threats to Economic Security.*

Proceeding from the above interpretation, *the economic factors that determine the key challenges to international security in the Euro-Atlantic region include:*

1. failures in the systems of energy supply and transit;
2. system disruptions in the mechanisms of financial transactions due to actions by criminal/hacker bands and/or violent non-state actors;
3. deteriorating quality of the labor force due to development of markets of merchandise and services oriented to support anti-social behavior patterns (drug addiction, alcoholism, sexual promiscuity, "escape into virtual reality", etc.);
4. formation of closed communities of labor (and other) migrants that stand in confrontation to political and cultural standards and customs of the host countries;
5. collapse of the state financial system following excessive social commitments that burden state budgets;
6. access by violent non-state actors to modern double-purpose technologies;
7. large-scale unsanctioned penetration into information networks of state governance and corporate management.

In accordance with the accepted "synthesized" approach, the list of challenges does not include various undesirable processes and phenomena that have no bearing on the "basic conditions for realization of key interests" at a national and international level. These cover corruption, economic crime, increased dependence on imports of goods and services, cyclical economic fluctuations, falling competitive potential, and the like.

They may produce (or will not produce, as in the case of dependence on imports) an adverse impact on the economic growth rates and/or opportunities for effective fulfillment of one or another priority in national policies (which includes priorities in the area of security). But they as such are not threats in themselves; rather, they are *weaknesses* that impede the struggle against threats if and when these materialize. Nor does the list include the threats that are seen to have close to negligible probability to emerge in the Euro-Atlantic region (piracy, return to foreign trade protectionism, large-scale application of economic sanctions, etc.). And the threats of environmental calamities are also left out of consideration (as the experience of Bhopal and Chernobyl demonstrated, even the largest of these disasters pose no threat to the economic system as such; and there is no reason to presume that this is not true of the Gulf of Mexico oil spill or similar possible cases).

The greatest potential threats to the *Euro-Atlantic region as a whole* are associated with economic and technological factors (system failures in financial and information networks resulting from intrusions by non-state actors), and also with the burden of excessive social commitments to the country's citizens and migrants. In *the case of Russia*, these challenges today are less significant – both due to the lag in technologies, and under the impact of stable traditions of cutting short unwarranted social demands

The problems of energy supply and transit are less dangerous for the Euro-Atlantic region overall, which is due to diversification of Russia's sources (in the event of non-constructive conduct by transit countries, forcible methods should not be ruled out in the long run in relations with their leadership).

The key problems that Russia shares with its partners in the Euro-Atlantic space are as follows:

1. access by violence-disposed non-state actors to modern double purpose technologies (the problem is sensitive already now and will be in the immediate future, and instruments of rapid response are urgently needed);
2. formation of closed communities of migrants as a factor of political instability and separatism (aggravation of the problems may be forecast in midterm, 5 to 10 years, and in the first place in individual EU countries that have large "non-European" presence);
3. deteriorating quality of the labor force following expansion of anti-social practices in the context of "development of new life styles" (a long-term problem bearing upon the labor force both in the economic sector per se, and in the enrollment in the armed forces, special services and law and order forces).

The potential for international cooperation with Russia's participation is the largest on point (1) (the list above). As for points (2) and (3), the standards of "political correctness" accepted in economically developed countries not only stand in the way of struggle against arising problems, but also hamper any adequate recognition that these problems do exist. In this connection, Russia will have to work out its own ways and methods of action to deal with this type of problems.

The participants in the discussion added up to this issue and elaborated on its aspects. Concerning the *disarray in the state financial systems* in the Euro-Atlantic countries, aggravated by the financial and economic crisis on a global scale, the growth of commercial indebtedness into sovereign state debts curbs considerably the financing of post-crisis rehabilitation and growth. Post-crisis development will be slower than that before the crisis, and will not make it possible to finance, relying on high growth rates, the state's commitments either in the social or in military-political spheres. With regard to social commitments, this concerns, in the first place, the already practically insolvent pension systems that cannot be quickly rehabilitated financially thanks to high growth rates. In the coming 10 years, this may lead to their adjudgement as insolvent coupled with a growth of social disgruntlement all the way up to mass disorders. Of special danger is a possibility that populist political decisions may be taken, including those directed against migrants, for economic growth will be slower if no young immigrant labor force is available. But if the immigrants are involved, they will within 15 years increase the already immense pension burden. In any case, if today's principles are further maintained, the pension system will run into serious difficulties, up to bankruptcy. On the other hand, the blame for these difficulties may be shifted on migrants, and this will strengthen the tendency towards formation of *non-assimilating diasporas* of immigrants from developing countries. These diasporas may become centers for spawning terrorism, considering the fact that internal contradictions between the local population and these diasporas in developed countries are going to be very painful. In the opinion of participants in the discussion, the above mentioned risks are

quite real and may cause appreciable damage to economic and political systems in the U.S.A. and EU countries.

The second point has to do with difficulties in meeting commitments on defense budgets. This concerns above all allocation by European NATO countries of 2% of their GDP for defense purposes, and the impossibility for the U.S.A. to maintain its military expenditures at a level equal to the summary spending for these purposes by 10 countries next on the list by this indicator. A number of NATO members (especially smaller Central European countries) are in actual fact gradually transforming their armed forces into a "collage" of specialized services (radiological reconnaissance, engineers, medical corps) intended to participate in NATO expedition forces (or future EU joint armed forces). The resulting "armies" of this type are incapable of providing full-fledged national defense even in conjunction with the armies of their NATO and EU allies, let alone on their own. At the same time, the budget deficit stimulates the countries' rational cooperation in maintaining the main elements of the armed forces (the same as the Baltic countries have already been doing, that is, they have built a joint navy, a regional air surveillance network, and a battalion as part of the NATO Response Force).

A number of other problems were discussed not as threats, but as *factors of uncertainty* in the economic development. One of these is the problem of global imbalances that cannot be resolved in the near future, and the resulting dependence of exchange rates of the leading currencies (the U.S. dollar, in the first place) not only on the market situation, but on Chinese leadership's political decisions as well. Another is the situation inside the European Union. It gives grounds for a measure of optimism following the recent several decisions for building a new institutional mechanism to tackle the problems of budgetary deficit. This actually means creation of incentives for restructuring national economies and, the main thing, practical demonstration by the European politicians of their commitment to Europe's integrity as an economic entity. Therefore, there is little probability of disintegration of the euro zone, although there may occur partial defaults in individual countries, or acceptance by one or another country of additional commitments on debts and an increase in the debt burden that aggravates economic uncertainties. Yet another factor is the situation in the multilateral trade talks within the WTO framework. The crisis-time growth of protectionism proved to be lesser than expected, but the Doha process is not yet finalized, and this acts as a brake on post-crisis revival of international trade and investment.

The advent of shale gas on the market and the oil spill disaster in the Gulf of Mexico became a factor of *additional uncertainty on the energy market*. The arrival of shale gas will in one way or another curb price rises, while the Gulf of Mexico disaster will result in higher prices and more rigid regulation of oil production. It is difficult to forecast the dynamics of these discordant pricing trends. They will probably come together in a mid-term perspective, because petroleum and natural gas are substitutes for one another. However, this constitutes an additional serious challenge for Russia, Europe and America that calls for risk hedging and preparations for uncertainty on the markets.

There were also proposals to classify socio-economic factors that influence Euro-Atlantic security, and to classify them in the context of ensuring immutability of the constitutional system, the borders and similarity of "non-traditionalist" orientation towards modernization. These are the factors associated with:

- errors in the economic policy (either inadvertent or consciously enacted in legislation);

- corruption (at grass roots and at top, at the level of government decisions which means actual violation of sovereignty);
- inequality (poverty level, unemployment, etc.).

These factors are in action, although to a different extent, in most of the countries in the Euro-Atlantic space; they may cause various disruptions but constitute no direct threat to its security.

Several participants in the discussion proposed that the above list should include a number of other threats, too. These were, first, the threats that work as factors of system failures, and, secondly, those threats that occur at cross points of the economic stability challenges and threats in the military-political sphere. These therefore are also an issue of economic security.

A number of issues in this bracket are discussed below. They represent a sectoral (industrial) (energy, with the exception of failures in energy supply and transit systems, transport infrastructure, food supply and agriculture), and environmental on a global scale (water supply and climate, demography) aspects of economic security, as well as the issue of international institutions related to it.

3. *Energy Security Issues*

Most of the participants agreed that the chief elements of Euro-Atlantic energy security were accessibility of energy resources, their unhindered delivery to the consumer, and efficient energy use technologies. Furthermore, the leading role in the world energy supply in the coming 20 to 30 years will stay with primary energy resources, above all, with petroleum and natural gas. New means of energy supply will involve diversification of primary energy resources (commercially effective production of shale gas, petroleum from bituminous sands, environment-friendly mining technologies, and the use of coal), and wider use of alternative energy sources (renewable – solar, wind, tidal, biomass and geothermal energy; and partially renewable – nuclear energy) to produce fuel and thermo- electric power. This, furthermore, also involves considerable energy saving and greater efficiency of the use of primary energy resources and derivatives, including those based on breakthrough "green technologies". In the transportation of energy resources, alternative, rather than traditional, routes and means of delivery to consumers are going to be employed (liquefied gas transportation, new types of electric power transmission). *Practically all of the above directions energy are common to the EU, U.S.A. and Russia. However, practical interests of the countries in the Euro-Atlantic space in employing them do not coincide and sometimes are even contradictory. Therefore, the main task in the mid- and long-term perspective is to synchronize their policies with an eye to the common interest of Euro-Atlantic energy security.*

This concerns especially energy collaboration between Russia and the EU, which will remain key partners for each other in this area for at least another 20 or 25 years to come. But repeated failures in energy deliveries (especially of natural gas across Ukraine in 2009 and across Belorussia) have sapped the European countries' trust in Russia's ability as a supplier. The energy dialogue between Russia and the EU has thus been transferred from a predominantly technical to a political plane. In actual fact, the energy issues have therefore been singled out of the overall realm of economic partnership, and the importance of the transit countries has been excessively emphasized (as a case in point, Turkey's negotiation positions vis-à-vis the EU and Russia are

strengthened markedly, which fuels Turley's regional political ambitions). And finally, all combined this led the European Union to adopt a set of measures to lower its energy dependence on Russia (diversification of oil and gas sources and delivery routes, development of alternative energy sources, etc.).

Any uncoordinated action by the EU, Russian and the U.S.A. to ensure energy security may only aggravate the current lack of coincidence in their interests and make it more difficult to identify and formalize the Euro-Atlantic region's common interest in ensuring steady, environmentally safe and economically efficient supply and use of traditional and alternative energy resources, with this supply reliably protected against unfriendly states and non-state (including terrorist) structures.

This is demonstrated by extrapolation of the present-day trends. The steep rise in the shale gas production in the U.S.A., and stabilization of petroleum production from bituminous sands in Canada have considerably lowered their dependence on imports of natural gas and, partially, petroleum from traditional suppliers (Middle East, Latin America), and the more so, their potential interest in supplies from Russia. The Qatar liquefied gas driven out by shale gas from the American market has flooded the EU market. The result is excessive supply, lower prices (down to \$120 per one thousand cub. meters), and weaker competitive positions of Russia's natural gas. Development of shale gas production in Europe may further worsen the situation for Russia, rendering unprofitable development of new distant and complicated gas fields earmarked for exports to the EU.

In this context, following construction of new EU gas pipelines that tie down Russia's gas production even more to a single consumer market, Russia may lose any ability to regulate the prices for exported gas. Some experts suggest that the Nabucco project was not only diversification of the sources and supply routes for natural gas, but also "driving" Russia into construction of additional capital-intensive gas pipelines in the EU. The programs for bringing alternative sources to an average of 20% in the energy balance in the EU countries (which includes up to 10% for bio fuel in transport fuel consumption), as well as creation on this alternative basis of a unified EU energy network, may further increase energy self-sufficiency of the European Union. To add, the marketing of Russia's energy in the EU may be adversely affected by changes in traditional directions of gas deliveries in the EU, and construction, along with Nabucco, of other alternative pipelines (Odessa – Brody – Gdansk as a possible link in the Central Asia – Central/Eastern Europe oil transportation corridor, and pipelines from Algeria and Libya).

At the same time, there are real technical, economic and political prerequisites for these processes to transform a common system of Euro-Atlantic energy security. The gas systems of Russia, the EU and even China (via pipelines from Central Asia) are already interconnected, and technically this makes it possible to build up a Euro-Atlantic transcontinental gas delivery system. In the case of oil supply, this kind of system may be created by linking the Russian-Central European and West European systems of oil pipelines. Russia may undertake to coordinate the operation of these systems in the Central Asian zone, providing for political conditions required to ensure reliable energy deliveries to the EU and, partially, to the U.S.A. from Russia's Far Eastern and Siberian fields. Pipeline transportation will in the future, too, remain the most environment-friendly and economically efficient means of energy delivery over distances up to 2,500 km.

The same concerns a possibility of transcontinental merger of energy systems. Development of energy resources in the Arctic may prove to be a promising area of Euro-Atlantic partnership, with this area remaining geographically and politically under control of Russia, Canada, the U.S.A. EU and Norway. A special emphasis in the Euro-Atlantic partnership should be made on united effort in development, introduction and coordinated employment of new technologies (from shale gas production to application of renewable energy resources, like new generation bio fuel based on Russian vegetable feedstock). Primary energy saving in Russia will make it possible to boost its export potential, with no need for great capital investments or lengthy periods of development of new fields, and ensure sustainable and environment-friendly development in the Euro-Atlantic region.

Of special significance for Euro-Atlantic security in energy supply and the military-political sphere will be partnership in nuclear energy ranging from access to uranium ore deposits (including new deposits in Australia and Kazakhstan) to measures guaranteeing security of nuclear sites. The issues of international security (Euro-Atlantic including) in the conditions of development of nuclear energy are viewed mainly in the context of the following two themes:

- the danger of "horizontal" proliferation of nuclear weapons: formation of technological and industrial potential in non-nuclear countries, which may be employed to create a nuclear arms arsenal bypassing the commitments under the Nuclear Non-Proliferation Treaty (NPT) as the state in question masters the entire nuclear fuel cycle including its most sensitive elements, such as uranium enrichment, disposal of spent nuclear fuel, and operations with heavy water. This also involves operation of research reactors using highly enriched uranium, as well as the use of fast neutron reactors for plutonium breeding;
- more rigid nuclear safety requirements, which includes, in particular, secure storage of nuclear materials to prevent access to them by radical and (or) terrorist organizations that could use these materials to create, if not nuclear explosives, then at least radiation weapons (contaminating bombs).

Differences at an international level arise in connection with the discussion of measures required to prevent proliferation of nuclear weapons (including "counter-proliferation" measures), and critical nuclear materials and technologies, and also in the cases of detected or suspected violation by any state of the nuclear weapons non-proliferation obligations (North Korean and Iranian dossiers).

Increasing the efficiency of the non-proliferation and security regimes in the conditions of the present-day development of nuclear energy on a global scale is one of the directions that open up prospects for further considerable rapprochement and greater common effort in this area within the Euro-Atlantic region.

Russia, the EU and U.S.A. are bound together by their commitment to the goal of nuclear non-proliferation, by largely (though not entirely) coinciding views concerning measures required to enhance the efficiency of relevant international regimes, and also by their close cooperation in increasing the level of nuclear security in Russia and third countries.

4. *Global Climate Change as a Factor of International Security*

Global changes of the climate are becoming an increasingly important factor influencing international, including regional (Euro-Atlantic, too), and national security. On the one hand, they give rise to threats to security, while on the other, they open up real opportunities for alleviating these threats or rendering them less acute.

Global climate changes and their consequences generate *threats to security* in two ways. In the first place, directly (direct threats): a considerable change of climatic conditions entails risks of deteriorating situation in the social and economic sphere. And there are *indirect threats to security* that are associated not with these same changes themselves and their direct consequences for the population and national economies, but with the policies pursued by the states with regard to the climate problem and the ways and means to alleviate the problem (so-called negative politico-climatic externalities).

In the area of *economic security*, the chief threats in the coming decade are associated with weather sensitive sectors of the economy, and in the first place with agriculture, forestry, water resources, transport and tourism that account for not less than one-third of the world's gross product. Especially sensitive are the threats to food security, including in Russia, the EU and the U.S.A. In the long term, the rise of the World Ocean's level creates the risk of floods covering a large part of the territory of several countries (including several maritime regions of the U.S.A. and EU) and threatening the normal functioning of their economies (might be their very survival). Threats are also arising to the population's life-support systems, such as fresh water supply in the regions and territories that are going to be drought-hit ever harder and more often.

The countries and regions across the world that are the most vulnerable to consequences of climate change are above all Africa, Southern Asia, etc., that suffer hardest from poverty, and social and regional conflicts, including armed hostilities and wars, among them those erupting over access to water and other key resources. Climate changes in this group of countries thus lead to aggravation of tensions and conflicts in international relations. At the same time, climate change, in particular, the thinning of the marine ice cap, that makes it easier to reach resources formerly hard of access, like on the Arctic shelf, fuels risks of greater tensions and conflict situations arising around a new bonanza, this time already in the G8 and G20 countries – in other words, these are risks in the sphere of *military-political security*.

The chief strategy to solve the problem of global climate change in most of the G8 and G20 countries is development of "green" economies oriented towards resource saving and efficient use of resources (energy, in the first place). At the same time, the accelerated modernization of the economy and transition to new technological patterns lead to emergence of new forms of economic competition, giving rise to risks of crises, trade wars, and other threats in the sphere of *economic security*. This may also include the threats to *trade and economic security* in the form of so-called "carbon barriers".

Besides, development of certain new industries in the "green" economy leads to a fall in employment in other manufacturing sectors with no new jobs to compensate it. This aggravates the problems of unemployment and *threats to socio-economic security*. Furthermore, an excessive emphasis on development of nuclear energy as an alternative to fossil fuel is fraught with risks of large-scale radiation accidents and, moreover, breaches of the non-proliferation regime, which means emergence of threats to, respectively, *socio-environmental and military-political security*.

At the same time, global climate change and its consequences make it easier to **reduce risks and threats to security**, and this also mainly in two ways. In the first place, this occurs directly, through improvement of people's living conditions, the production sphere, trade, and so forth, but also indirectly.

In northern countries, including Russia and Canada, the climate warming means a shorter heating season and fuel saving, and consequently, reduction in noxious emissions, that is, benefits from the point of view of *environmental security*. The crop farming area in these countries expands, and the vegetation period becomes longer, which may facilitate development of the agrarian sector, with production expanding and more jobs offered. All combined, this reduces the risks in the sphere of *economic, food and social security*.

Easier access to natural resources owing to the trend towards shrinkage of ocean ice caps results in alleviation of threats in the area of *economic security as well as* a measure of improvement of the situation in the area of *transport security*. For instance, even partial ice ablation along the Northern Sea Route and the Northwest Passage expands the opportunities for maritime traffic, makes the shipping season longer and improves navigation conditions for Russia, and the U.S.A. and Canada respectively.

Indirectly, global climate change helps alleviate the security problems, since the states' policies have to include measures to resolve the climate problem, or at least to alleviate it (the so-called positive politico-climatic externalities). An especially important area of activities is working out and realizing a coordinated position of the countries in the Euro-Atlantic region for post-Kyoto development of the international system of countering climate changes.

It is highly important that the measures to solve the climate problem through expansion of a "green" economy should include development of new resource saving technologies that provide for efficient use of resources, energy above all, and protect the environment. This is instrumental in strengthening *environmental* (with the fossil fuel importing countries' lower dependence on foreign supplies) and *economic security* overall. In addition, modernization of monitoring and warning technologies employed in hydro meteorological observations enhances the efficiency of *civil defense* systems that provide for security of the population in emergency situations in peace time. The above mentioned negative impact that development of a number of "green" economy sectors produces on employment, is in a wider context, with changes in incentive mechanisms for environment-friendly economy, replaced by a positive effect of a general growth in employment and lower level of structural unemployment that works for *socio-economic security*.

An important aspect of the impact that changes in the climate and nature overall produce on international security (Euro-Atlantic as well) is the problem of water supply.

The post-industrial world is interested in that the access to natural resources should be based on the market system, on competition among those who possess one or another type of resources. It is critically important to shift the emphasis from problems at country levels to global problems, to the world economic system the way it exists today, that is, the globalizing post-industrial economy (which includes the U.S.A. and EU, and which Russia is also joining). Of fundamental significance are differences regarding access to resources in the position, on the one hand, of post-industrial countries, and, on the other, the position of practically all developing countries that continue to lay claims

to other countries' territories possessing resources that they are short of, including mineral resources, land and water.

Water resources represent an absolutely specific issue. Fresh water in the world today is becoming a resource renewable only to a limited extent, while water is an all-embracing condition both for human life support and for economic activities, and requirements for it are colossal.

Accessible economic natural resources in many regions of the world are already practically depleted, and according to long-term forecasts their almost full depletion is to be expected in the interval between 2025 and 2035. Water shortage will in all probability become a factor determining the main structural shifts in the real sector of the world economy, both geographic and industrial, in the second quarter of the 21st century, which right now are difficult to forecast in detail.

Response to this situation in post-industrial (including Euro-Atlantic) and developing countries will differ. The European post-industrial countries have a low level of water supply – which they have adjusted to, and there is no real water shortage in Europe therefore. Meanwhile, this shortage is highly tangible in Asian and African countries. It is the cause of famine and conflicts, including regional, that may need intervention by post-industrial countries, political as well, to settle them.

To prevent water conflicts in the third world from becoming a creeping phenomenon, from turning into an epidemic of sorts spreading across the world, the post-industrial countries at the helm of the world market possess relevant means and remedies, in the first place, development of water saving technologies.

The main direction in the development of the world market and restructuring of the real sector should be development of water-intensive industries only in the places with sufficient water resources. And there are only three countries that possess large reserves that allow them to operate on the market of water-intensive products. Two of these countries are part of the Euro-Atlantic space, while the third, Brazil, actively collaborates with them. Russia places second in the world in the gross water reserves, next to Brazil, and third in water reserves per head of population, next to Brazil and Canada. Furthermore, Russia has at its disposal all that is necessary to develop practically all water-intensive industries: thermal power engineering, nuclear power engineering, high tech chemistry, (with petrochemical synthesis, in the first place), ferrous and non-ferrous metal production, agriculture, and food industry.

The rest of the world (including partners in the Euro-Atlantic region) will therefore be interested in Russia's efficient use of water resources the shortage of which will become a paramount factor in the world economic development. Emerging on the market with a sufficient volume of good quality water-intensive products, Russia will meet the world market's demand for it, put an end to its raw material orientation of exports and the economy overall, and obtain decent incomes more reliable than those from petroleum and natural gas production. Otherwise Russia's position will become a factor of instability in the world, and in the Euro-Atlantic community, in the first place.

Although there are no immediate threats to water supply for the Euro-Atlantic region, there is a need to find ways to coordinate these countries' strategies of economic development to achieve efficient use of water resources. Another goal in this respect is to use economic and political means (up to peace making actions) to prevent in a coordinated way conflicts over water supply in their zones of responsibility, and above all, in the Middle East and Central Asia.

In this connection, there is also a proposal to make more emphasis on Central Asia within the framework of the issues of Euro-Atlantic security. Central Asia should be a matter of cooperative action by participants in the Euro-Atlantic region, because it is of interest to the EU in its resources, to the U.S.A. in its strategic location, and to Russia in its economic and political proximity and relationships. These interests may be brought together within the framework of coordinated projects to rationalize Central Asian water supply and water use (except for reanimation of projects to divert part of the run-off of Russian rivers to Central Asia).

5. The Demographic Factor of Security in the Euro-Atlantic Region

The demographic factor creates new challenges and threats for economic development, domestic social and political stability, and the geopolitical situation of the Euro-Atlantic region. New trends in the demographic situation, largely common, especially to the EU and Russia, are sharp reduction in the human labor force expected to occur before 2030, progressive ageing of the population, and the increasing role of migration in the development of the population and economy. This means limitations on the labor component in economic growth, an increasing pressure associated with upkeep of pensioners on each working citizen, and population and labor force "up-drug" fraught with tensions in cultural, ethnic and political spheres.

The main challenge is associated with a sharp shrinkage of employable population, with the depth of that demographic slump that is already in evidence in Russia and starts in Western Europe in 2010, because the immigrant segment in these countries is much larger (not just Russia's 10%, but 2.5 to 3 times as much). It is not yet clear whether economic growth can be sustained, let alone accelerated, with shrinking employment. Mobilization of domestic labor resources (also by means of the pensioners' longer working life, and enrollment of out-of-works or irrationally employed) is not enough to meet the requirements of the labor market. This is an absolutely new problem. No drain of employable population on such a vast scale and over such a long period of time occurred ever before either in Russia, or in the EU.

If Europe and Russia prove to be unable to solve swiftly the problem of demographic shortage of labor force, they are threatened by a protracted economic slump, a fall in their role as players in the world arena, and for Russia, a dwindling of the populated space and a prospect of losing control over the territories of Siberia and the Far East.

The participants in the discussion had various opinions concerning the problem of depopulation of Russia's eastern part (in actual fact, population growth is stopping in the territories from the Volga region and eastward, and concentrates along the line Krasnodar – Rostov - Moscow – St. Petersburg), which portends a change in the ethnic balance in demography there in favor of arrivals from North-Eastern Asia (Chinese in the first place). They also proposed various ways to solve it: from possible restrictive administrative measures (a ban on migration or limiting it by the terms of a labor contract for a rigidly prescribed period) to drawing on the experience of the old-time Russian Empire of pursuing in Siberia and the Far East a policy of making use of Chinese-Korean-Japanese discordances. In the present-day situation, Japan could become a source of investments, South Korea – of technologies, and China – of the labor force. In a mid- and long-term perspective, the progressive ageing of the

population may become a factor of collapse of the pension system and the entire social security system, and an upsurge of socio-political tensions.

The migration scenario is also associated with serious challenges, especially considering the fact that the chief donors may be countries with far-reaching ethno-cultural distinctions. An inevitable result would be a change in the ethno-confessional composition of the population, which is fraught with an increasing danger of ethno-confessional conflicts and radical political shifts. The greatest danger is the so-called "Islamic challenge". The social and political tensions that already today accompany the problems of the Muslims' integration in the host communities, in the conditions of the inevitable growth in their numbers and the share in the population, may become a significant destabilizing factor.

Yet another serious danger is a possible further increase in illegal immigration that fuels and stimulates shadow economies. The development of mafia migrant networks serves as a cover for criminal trafficking in humans and drugs. Illegal migration has at present acquired immense dimensions in all parts of the Euro-Atlantic region. It is assessed at 8 million persons in the EU, even more in the U.S.A., and 4 to 5 million in Russia. That is, the governments cannot control or cope with migration flows.

These problems of migration can hardly be resolved within the framework of just one individual state. The very nature of the above challenges calls for coordinated efforts and close interaction by all countries in the Euro-Atlantic space. The similarities in the demographic situation, the common problems that the countries are going to face, difficulty in looking for adequate solutions and response to the challenges arising, all combined this creates favorable prerequisites for Russia-EU cooperation. And extremely important in this cooperation is the experience of the U.S.A., the country that managed to avoid a harsh demographic crisis, and is more successful in integrating immigrants.

The Euro-Atlantic region, the U.S.A., EU and Russia border in the south on countries with predominantly young population, which form what is called an "arc of instability" (the Andes region in Latin America, Nigeria, Somalia, Afghanistan, Pakistan, and Central Asian countries). These countries remain prone to socio-political upheavals, sharp political confrontations, and even collapse of statehood (like in Afghanistan and Kyrgyzstan). There is also a danger of increasing activity of extremist youth movements, including radical religious elements. Therefore, the countries in the Euro-Atlantic space are interested in collaboration in order to look for ways to produce a stabilizing effect on the situation in the potentially conflict-prone countries, which implies the monitoring of public sentiment in these countries, especially among the younger generation, detecting informal international network contacts among extremist and terrorist organizations and leaders, and working out methods to counter them.

6. *The Food Problem as a Factor of Euro-Atlantic Security*

A number of countries have in the recent 5 years faced increasing risks in food supply on a national and world scale, already growing into threats, and even open crises in some places. The situation somewhat stabilized in 2010, but *the 21st century will no longer be a century of cheap food and relatively stable world agricultural food markets, and agriculture will not be able to develop further according to the previous resource-intensive model.*

The global financial and economic crisis has revealed the large scale of the problem of world food security. This problem includes *both direct threats and risks to food security* (having to do with physical and economic accessibility of food products, and their quality and safety for consumers), *and indirect* (associated with global aspects of the deficiency of natural resources for agriculture, climate changes, changes in the agricultural technological model and food patterns, as well as socio-political consequences of these processes).

This makes new demands on the countries of the Euro-Atlantic region as the main actor in world food production and trade. Their responsibility for transition to a new world food products order increases sharply. *In the new conditions, security requires greater interaction and involvement of new partners and allies to meet direct and indirect challenges.*

The first group of challenges has to do with food security as such. In 2007, the U.S.A., EU and Russia accounted for nearly 33% of the world's grain production, some 35% of pork and poultry, over 36% of beef, and more than 40% of dairy products. With Canada, Kazakhstan and Ukraine added, these shares made respectively almost 37%, more than 36%, around 40% and 44%. *Even in the crisis year 2009, the EU, U.S.A. and Canada accounted for more than 41%, and Russia for some 2% of the world agricultural exports, and, respectively, for 37% and nearly 5% of the world agricultural imports.* The situation in Russia, which had become the world's third largest grain exporter, already affects the shape of the world market. The fall in the grain crops in Russia by 30% expected in 2010 following the drought brought about an increase in world prices and apprehensions of traditional importers of Russian grain (Egypt and other developing countries) over their food security.

The advanced development of agriculture in Russia, Ukraine (by 29%) and Kazakhstan that the Organization for Economic Cooperation and Development and UN Food and Agriculture Organization forecast for 2010-2019, offers even better prospects of building up a *"Broad Euro-Atlantic Partnership"* (EU, U.S.A., Canada + Russia, Kazakhstan, Ukraine) in solving the problems of their *"mega-regional"* and *global food security.*

The main directions in this kind of expanded partnership could be:

- joint forecasting of production, consumption and export-import traffic of all the main types of food for the world and leading regional markets, coupled with measures to maintain balances in the world production and trade up to coordinating desirable equitable price levels on the world market;
- coordinated participation in the formation and management of international (for example, under the UN aegis) insurance funds of grain, vegetable oil, dairy products, sugar, and mineral fertilizers to provide emergency aid to the countries in a difficult situation;
- drawing up recommendations for mutually advantageous international production and trade specialization, including cooperation in investments;
- coordinating the rules of activities of the leading agricultural commodity exchanges and transnational companies located in participating countries, in order to prevent speculative operations that may lead to volatility of food prices and have a negative effect on the interests of producers and consumers.

The second group of challenges pertains to the general conditions of development of the world food production and management, which create additional risks and threats associated with the problem of global food security, and to participation by the "Broad Euro-Atlantic Partnership" in its solution. These challenges involve, above all, aggravation of competition over land and water in food production, shrinkage of the world potential of agricultural production following climate changes, and the deterioration of the positions of the main structural element in food production in developing countries, that is, small and medium-size farming economies.

The way out of this situation is through transition to the third generation agricultural technological model, which is land-, water- and energy-saving, environment-friendly and relying on safe use of GMO. Creation of this kind of model, its adjustment to the conditions of developing countries (especially support of small and medium-size farms), and assistance in its introduction within the framework of national government programs, all are an important field for the activities of the "Broad Euro-Atlantic Partnership". The U.S.A. and EU could also be instrumental in the transition of agriculture in Russia, Kazakhstan and Ukraine to the third generation model as an element of integrated modernization of their economies.

On the whole, the EU and U.S.A. are aware of the pressing necessity to cooperate on the issues of food security, although there are differences in the trans-Atlantic partners' positions. The EU considers it reasonable to develop cooperation on the basis of the existing international institutions, while the U.S.A. is inclined to create new institutions to solve concrete problems. Russia, considering its own national interests, may collaborate with the trans-Atlantic partners in both formats. In the first case, this, above all, has to do with participation in the implementation of what is known as L'Aquila Food Security Initiative adopted at the G8 / G20 summit in Italy (July 2009), and also with cooperation to create a Global Partnership for agriculture, food security and rational nutrition, including a reform of the FAO World Food Security Committee. In the second, it means Russia's participation in projects of common interest within the already operating programs of the EU (including the Food Facility program with, for example, Tajikistan as its beneficiary), and the U.S.A. (including the Food for Future program within which Russia and Kazakhstan could become strategic partners for the U.S.A. in Central Asia).

7. Interaction of Regional and Sub-Regional Economic Institutions of the Euro-Atlantic Region on Security Problems

Experts emphasized that the issue of interaction of these institutions is directly associated with the extent to which the groups existing in the Euro-Atlantic region fundamentally differ in their economic significance and the integration experience that they have behind them. Economic integration of individual countries develops poorly when there is a single undisputed leader around, but probably an equally adverse effect is produced on the balance of interaction among various integration groups when there is a giant present, the way the EU has become in the Euro-Atlantic region in the 1990s and 2000s. The European Union has, at least until recently, considered itself a self-sufficient integrated community capable of withstanding on its own the challenges to security. Its policy was to enroll new members rather than transforming its own system in order to strengthen its cooperation with regional integrated groups (even in Western Europe, like, for example, the European Free Trade Association).

If we leave out the cultural-political considerations, the latest enlargements of the EU should be assessed as a hasty action, especially bearing in mind the contrasts that are obvious in the economic and social development of member countries. In this connection, the EU started revising its attitudes towards neighboring regions, including CIS countries (Eastern Partnership). The complicated correction of the integration principles and institutional structure, summarized by the Lisbon agreement, as well as the crisis that broke out in the euro zone, provide no grounds for the EU in the coming several years to take any serious action in the post-Soviet space.

In the realm of economic security, the non-North American participants in the Euro-Atlantic region, that is, Russia and regional economic associations that it initiated, are of interest to EU countries in the main from the point of view of their markets and resources. In a long-term perspective, the attitude towards migrants from the post-Soviet regions will take a more positive turn. Before the crisis, gaining a foothold on post-Soviet markets, including transfer by European investors of manufacturing industries and services to these markets and making easier the two-way traffic, was viewed in the EU in the format of Free Trade Zone Plus that was to precede Russia's and other countries' access to the WTO. No other, broader formats of cooperation with sub-regional economic organizations with Russian participation (EurAsEC, the Customs Union) were considered.

What is of paramount importance for the EU is still the energy dialogue, which is to a considerable degree artificially separated from the economic set of issues as a whole. Moreover, the emphases in this dialogue have gradually been changed. While in 2002, the key aspects were those of technological nature (reliability of energy systems was viewed as environmental safety of pipelines) and assistance to Russia in modernization of its electric power industry and so forth, by the middle of the decade, the issues under discussion had been shifted onto a political plane. By the end of the decade, certain themes, formerly of secondary importance, but significant for Russia, came to the foreground (including merger of the electric power systems of the CIS and EU, and cooperation in nuclear energy). Energy security is also associated with the constantly discussed issues of greenhouse emissions, overall enhancement of efficient energy consumption in the economy, etc.

Evidently, it is the energy dialogue that the EU could be prepared to take over to the format of relationships with all post-Soviet states. This concerns Central Asian countries and Azerbaijan with their mining industries, and transit countries, Ukraine and Belorussia, in the first place. It is not ruled out that as an interim option, the EU could be prepared to start a general dialogue with only Kazakhstan, Russia and Belorussia. EU countries are prepared to hold a dialogue with individual post-Soviet countries on a great variety of issues, this, however, no longer in the format of interaction between integration associations, but rather in the all-European format.

The OSCE, too, can make a certain contribution. It has made the issue of economic security one of its three key dimensions in the situation of global changes in the system of international relations. In the OSCE, they regard the economic aspect of security as creation and maintenance of a favorable climate for entrepreneurship in the countries concerned, cooperation in fighting money laundering and financial support of terrorism, support of development and security of the transport infrastructure, cooperation in the area of migration policies, and measures against a further deepening of socio-economic inequality and growth of unemployment. Protection of the environment implies that member states should work to maintain ecological balances, reducing noxious emissions

into the atmosphere, water and soil, that they should cooperate in managing water resources, in radioactive waste disposal, in maintaining the energy dialogue, and in elimination of the consequences of environmental disasters.

The main barrier in the way of interaction among institutions is the persisting poor development of integrational associations in post-Soviet regions. In this context, Russia should decide whether it wishes to get integrated in an accelerated manner in the EU economic space, or to do so gradually along with the neighboring countries, or to develop geographically more balanced economic relations with the world around.

Sergey A. Afontsev

Head of a Department, IMEMO RAN

Economic Factor in the System of Euro-Atlantic Security²

I. Since the general theme of the situation analysis is "Economic Security Problems in the Euro-Atlantic Region", it is necessary from the very outset to make clear the specific application of the notion "economic security" (ES) with regard to the subject discussed. A number of definitions of ES have been proposed in literature, the most popular of which are as follows:

- (1) ES as a condition for realization by the government of the goals set in the area of economic policies;
- (2) ES as an issue of competitive ability decisive for the status of the country / region in the world economic system;
- (3) ES as a condition for suppressing illegal kinds of economic activities;
- (4) ES as an issue of access to raw materials markets (energy resources, in the first place) and to marketing outlets;
- (5) ES as a condition for sustainability (stability) of economic development;
- (6) ES as an economic dimension of the issue of military-political security.

Definition (1) implicitly assumes that the very formulation of the goals of economic policies is a sufficient reason for legitimizing them as an element of ensuring security, which is in itself more than disputable (many of the goals of economic policies are unrealistic, mistaken, or dictated by the pressure of interested lobby groups). Definition (2) in actual fact implies identification of competitive ability and security in their priority significance, which lacks any strict foundation (the concept of a country's competitive ability at present is still not supported by any scientifically grounded status, while corporate competitive ability is rather a priority for corporations, not for national / international policies). Definition (3) is widely used by representatives of law and order services. However, this is the case where the notions "legality" and "security" are confused. Definition (4) is today shared by many experts, but where it concerns globally significant matters indeed (like, for example, energy carriers supplies for the world economy) it intersects with definition (5), while in the industrial sense it creates the risk of collective interests being supplanted by private interests of industrial lobbyists (with numerous excesses in manipulation with "resource", or "food", or "medicines", or "fish" or something else "security").

II. The most popular are definitions (5) and (6) that identify ES as stability of the economic system and reliability of the resources required to achieve the priorities in military-political security. In both cases, it is a matter of regarding the notion of security in the context of *providing basic conditions for realization of key interests in the political and economic spheres, with regard to which there is a stable consensus in the national or international political system concerning the ways to achieve them.* This

² Author's thesis

interpretation implies that the threats to security are only seen in endogenic and exogenic factors that really bear upon the "*basic conditions of realization of key interests*", that is, *they put into question the very functioning of relevant political and economic systems*. This rules out an expanded interpretation of any economic shocks (like, for example, those brought about by cyclical processes in the economy) as "threats to security".

III. Yet another important circumstance is associated with the difference between threats and challenges to security. Our understanding of *challenges to security* is deliberate actions by individual and institutional agents, as well as other events and processes that under certain conditions may obstruct realization of key interests in the political and economic spheres. In the event of poor or lacking mechanisms to respond to challenges, the *threats to security* become actual – associated with a real possibility of direct damage to the process of attaining relevant priorities. The absence or weakness of mechanisms responding to challenges thus becomes a *factor actualizing threats*. The difference between these notions may be illustrated by an example related to "food security". An increase in imports of food products may potentially represent a challenge to security, but it may only turn into a threat if (a) there is a real probability of interruption of imports (for instance, following an embargo or short supply on the world market, and (b) in the conditions of failures in foreign supplies when the national economy is unable to launch output of the products in question. If these conditions are not observed (the way they are not observed, for example, in Russia today) there are no grounds absolutely to speak of a "threat to security following an increase in imports".

IV. In the context of the aforesaid, we can draw up the following *list of economic factors that determine challenges to international security in the Euro-Atlantic region*:

- (1) failures in the systems of energy supply and transit;
- (2) system disruptions in the mechanisms of financial transactions due to actions by criminal/hacker bands and/or violent non-state actors;
- (3) deteriorating quality of the labor force due to development of markets of merchandise and services oriented to support anti-social behavior patterns (drug addiction, alcoholism, sexual promiscuity, "escape into virtual reality", etc.);
- (4) formation of closed communities of labor (and other) migrants that stand in confrontation to political and cultural standards and customs of the host countries;
- (5) collapse of the state financial system following excessive social commitments that burden state budgets;
- (6) access by violence-disposed non-state actors to modern double-purpose technologies;
- (7) large-scale unsanctioned penetration into information networks of state governance and corporate management.

In accordance with the criterion set down in p. II, the list of challenges leaves out various kinds of undesirable processes and phenomena that do not have any bearing on the "basic conditions of realization of key interests" at a national and international level (corruption, economic crime, increasing dependence on imports of goods and technologies, cyclical economic ups and downs, a fall in competitive ability, and so

forth). A country may live on with problems of a certain type for decades on end. These problems may produce (or not produce, as in the case of dependence on imports) a negative impact on the rates of economic growth and/or on whether it would be possible to attain effectively various priorities of state policies (including priorities of security), but they themselves are not threats, rather, they are *weaknesses* that hamper the fight against threats when and if these become a pressing reality.

The same way, this list does not include the threats that look like hardly possible to actualize in the Euro-Atlantic region (marine piracy, return to foreign trade protectionism, large-scale economic sanctions). No threats of environmental disasters are considered either (as the experience of Bhopal and Chernobyl has demonstrated, even the largest of these disasters present no danger to the economic system as such, nor are there any grounds to believe that this is not true of the oil spill in the Gulf of Mexico or possible similar accidents).

V. The table below summarizes the author's forecasts regarding (a) significance of the challenges in question for the Euro-Atlantic region overall and Russia in particular, and also (b) probability of the challenges existing today developing into full-fledged threats.

	Challenge/threat to economic stability		Challenge/threat in the military-political sphere		Probability and the time horizon of actualization
	For the region	for Russia	For the region	for Russia	
Failures in the functioning of energy supply and transit systems	±	+	–	±	Average (3-5 years)
System failures in mechanisms of financial transactions	+	±	±	–	Average (5-10 years)
Deterioration in the labor force quality	±	±	±	±	High (15-20 years)
Formation of closed communities of migrants	±	–	+	+	High (5-10 years)
Collapse of the state financial system	+	±	±	±	High (10-15 years)
Access to modern double-purpose technologies	–	–	+	+	High (3-5 years)
Penetration into information networks of state governance and corporate management	±	–	+	±	Average (3-5 years)

+ - great significance for the area in question;

± - medium-level significance;

– - no significance.

It follows from the table that the highest potential threats for the Euro-Atlantic region overall are associated with factors of economic and technological nature (system

failures in financial and information networks as a result of intrusion by non-state actors), and also with the burden of social commitments to citizens and migrants. In the case of Russia, the significance of these challenges is smaller due both to technological lag and the stable traditions (useful in this case) of cutting short unwarranted social demands.

The problems of energy supply and transit are less dangerous for the Euro-Atlantic region overall (due to diversification of the energy sources and flexibility in supplies responding to changing price balances) than for Russia (in the event of non-constructive conduct by transit countries, forcible methods should not be ruled out in the long run to bring pressure to bear on their leadership).

The key problems that Russia shares with its partners in the Euro-Atlantic space are as follows:

- (1) access by violence-disposed non-state actors to modern double-purpose technologies (the problem is sensitive already now and in the immediate future, and instruments of rapid response are urgently needed);
- (2) formation of closed communities of migrants as a factor of political instability and separatism (aggravation of the problems may be forecast in midterm, 5 to 10 years, and in the first place in individual EU countries with large "non-European" presence);
- (3) deteriorating quality of the labor force following expansion of anti-social practices in the context of "development of new life styles" (a long-term problem affecting the labor force both in the economic sector per se, and in the enrollment in the armed forces, special services and law and order forces).

The potential for international cooperation with Russia's participation (the list above) is the largest on point (1). As for points (2) and (3), the standards of "political correctness" accepted in economically developed countries not only stand in the way of dealing with arising challenges, but also hamper any adequate recognition that these challenges do exist. In this connection, Russia will have to work out its own ways and methods of action against this type of problems.

S. M. Guriyev

Professor, Doctor of Economics, Rector of the Russian Economic School

Possible Scenarios of the Financial Crisis Growing into a Threat to Euro-Atlantic Security³

In principle, there is little probability of catastrophic scenarios developing in either a mid-term or a long-term perspective. However, there are very many factors that cause apprehensions concerning the economic situation both in the United States, and Western Europe, and even China.

Now, what is the problem all about? For the first time in post-WW II history, it has turned out that developed countries are faced with budgetary restrictions. If we assume that this is peace time that we are living in (although opinions vary on this account), then this is the first case that in peace time the American debt reaches the level of 100% of the GDP and is there to stay in the foreseeable future. And this is already a considerable amount. The crisis on the whole is coming to an end, but the countries emerge from it with a heavy debt burden. And this means that post-crisis development is going to be slower than we expected prior to the crisis, than actually the pre-crisis growth rates. And this sets challenges to the economies of the entire world. Why?

The point is that while sovereign debts are going to be high both in America and European countries, the interest rates are also going to be high, and the loans and credits are going to be expensive, and the funding of a new economic growth is going to be difficult. And if the economic growth is sluggish, then any hopes that the pension system may be funded due to fast growth will fall through. If we speak of the matters that we always put off, that we were reluctant to bring up, then at present, unfortunately, we can see that already in the foreseeable future the pension systems of developed countries are to all intents and purposes insolvent. This notwithstanding that just recently American and European politicians claimed that this presented no problem to them and they would in some way cope with it. They hoped that some sort of miracle would occur, that the economic growth would be sufficiently fast, and consequently, that economic growth would make it possible to solve the financial problems involved. *It is this that, in my opinion, presents the greatest risk.* Not any collapse of the euro zone, which, in principle, has proved to be of little probability, not America's default on its bonds, but actually *the pension systems declared insolvent, which will result in a danger of populist political decisions.*

It is from this standpoint, if we speak about Euro-Atlantic security as such, that we can discern the key problem. Otherwise, when this kind of problems are discussed in a populist manner there are always temptations to slide to issues associated with ethnic hatred. This is something that we have already seen in Europe, and it is quite possible that the same may happen in the United States as well. Today, as you know, there are already not quite politically correct discussions of migration issues erupting in the U.S.A. So, evidently, when the crisis is over, the pension issues will in one way or another be discussed in Europe, too, and with a great anxiety. And therein is the greatest risk.

³ Text of a statement at the situation analysis conference

The serious risks, in my opinion, also involve the factors that in one way or another may lead to formation within developed countries both in Europe and America of non-assimilating diasporas of immigrants from developing countries. These diasporas may in practice turn into centers of terrorism, what with the fact that internal contradictions inside developed countries between the local population and those diasporas are going to be highly painful.

The rest of the problems look to me difficult but not all that terrible. For example, the problem of global imbalances will not be resolved in the foreseeable future in spite of the statements by G20 in June 2010 that the countries were going to try and resolve the problem. It is obvious that the imbalances have piled up so high that they are unlikely to be cleared in the foreseeable future. This, in turn, means that the exchange rates of the main currencies, American dollar, in the first place, will depend not only on the market trends, but also on the Chinese leadership's political decisions, which in actual fact creates stimuli for interdependence of these economies, and this is probably useful from the political viewpoint. But viewed in the economic context, this represents a serious factor of uncertainty. Nevertheless, I would think that this is not the greatest of the problems.

Yet another big issue is the situation inside the European Union. I would say that developments in recent months provide grounds for serious optimism, because no one could imagine that European politicians, who previously had not shown any promptness of response, or ability to coordinate their actions, or ability to fulfill their obligations – that they would be so fast in making decisions. It is, of course, a big question so far whether and to what extent these decisions are going to be carried out. But in any case, a number of decisions have been taken, including those to build up a new institutional mechanism to resolve the problems of budget deficit, and actually to create stimuli for restructuring national economies. And the main thing, the European politicians have demonstrated their commitment to Europe's integrity as an economic unit. This, from my viewpoint, is a very good sign. It shows that most likely there are no reasons to expect disintegration of the euro zone. It is quite possible that partial defaults on a country level may occur, and some countries may resort to small debt remissions. This probability does exist, but I see nothing terrible about this either. Moreover, even this will most likely be avoided. How will this come about? For this purpose, the countries will undertake additional obligations, redeem these debts and guarantee them at the expense of taxpayers, with the debt burden increasing further on. And this will be, as I already pointed out, a separate special problem that in the final count, in my opinion, will grow into a problem of interaction with young immigrants from developing countries.

There is yet another factor that, I am sure, will today be discussed on other reports, and this is a factor of additional uncertainty on the energy market. Two new phenomena have emerged in the recent year, that is, arrival of shale gas on the market and the disaster in the Gulf of Mexico. Shale gas will in one way or another slow down the price rises, while the Gulf of Mexico oil spill will lead to higher costs of petroleum production and more rigid regulation. Accordingly, petroleum prices will more probably tend to rise, rather than to fall. Therefore, the fact that within one year alone two fantastically important factors have appeared on the scene indicates that we have no idea at all of what direction the petroleum and natural gas prices will follow. And this certainly entails an additional highly important challenge for Russia, Europe and America. We've got to decide how these risks are to be hedged and to prepare for this uncertain situation.

And here is one more factor that in itself is no reason to worry, but offers food for thought and is reason to try and understand how these risks can be averted. This factor is actually the situation at the multilateral trade talks. The G20 leaders said that they would like to accomplish successfully the Doha round, but made no substantive statement on the subject. And there has so far been no progress in the Doha round. The good news is that during the crisis, protectionism, although the leaders came up with pledges, and these pledges, unfortunately, remained unfulfilled, - protectionism did spread, but to a much lesser extent than we had expected. In this sense, we can see that the political elite is, still and all, looking to globalization, to global trade and investments. This, from my point of view, is very good news. But all notwithstanding, we have up to now not seen any great progress in the Doha round. This may prove to be an important international project that will in the final count help create a post-crisis agenda. One of the agendas for collaboration by the leaders at G8 and G20 meetings is financial regulation. Another might just be trade talks. But I see no catastrophically high risks in any of these areas.

Let me emphasize once again that on the whole we have to get ready for years of slow growth of the world economy. Asian economies will evidently grow faster, and it is quite possible that Europe this year will score no growth at all, and in the following years European economies will be growing much slower than the forecasts had it. Let's say, not 2% or 3%, but 0 or 1%. The same will be recorded in the American economy. Right now, considering the problems in Europe it seems that the American economy is successful, but in America, too, the forecasts for growth are revised in the downward trend. And this in the first place is associated with budget deficits.

The most important thing from the point of view of security is the risk, as I already said, of populist decisions associated with insolvency of the pension system, which may be seen on the horizon already in the coming 10 years.

O. A. Buchnev

Professor, Doctor of Economics, Deputy Director of INII RAGS

Impact of Interruption of Energy Deliveries on Economic Security of the Euro-Atlantic Region⁴

In present-day conditions of the continuing economic crisis, an interruption of contractual deliveries of energy carriers subverts the economic security of both consumer and supplier countries. In many cases, the very fact of this kind of threat causes destabilization in economic relations. Energy resources become the cause of potential frictions and conflicts. The issues of energy deliveries have become one of the most important elements of world politics. Their interruption leads to numerous problems of both political and economic nature.

As a case in point, the full interruption of Russia's natural gas deliveries in January 2009 in the Balkan direction to such countries as Bulgaria, Romania, Greece and Macedonia, and partial stoppage to a number of other EU countries and Turkey damaged perceptibly Russia's image as a reliable supplier of energy carriers. At the same time, following the failure in fulfillment of the relevant obligations, Russia's share of the natural gas supplies dwindled on the markets of EU countries. In the fourth quarter of 2008 and first quarter of 2009, the gas exports fell by 30.4 billion c.m. over the preceding 6 month period. To compare, the increment in the Russian natural gas exports in 2007-2008 made 5.5%, with the demand growing by 2.7%.

The net increase in this case was only 2.8% above the demand, while the losses within the 6-month period made 19.6% of the European market that made up for the losses in deliveries with gas from Norway, Algeria and Qatar. Apart from traditional consumers of Norwegian gas (Germany, France, the U.K., Holland, Belgium and Spain), Poland also expressed its interest in buying it. Among the European purchasers of Algerian gas, first place goes to Italy, then follow Spain, France, Belgium, Turkey, Portugal and Greece. The reasons behind the stronger positions of Qatar gas are somewhat more involved, and we shall examine them further on.

During the 2009 conflict, the growth in gas deliveries for European consumers, which went through Belorussia, Poland and Turkey, when brought up to its maximum capacity, increased excessively these countries' transit significance. In this connection, it is appropriate to recall that there were transit and tariff problems arising in relations with these countries, too.

The warming-up in relations with Ukraine in 2010 that provides for gas transit of from 107 to 128 billion c.m. annually was accompanied by a conflict with Belorussia (45-48 billion c.m.). The interruption in deliveries to Poland announced on the eve of the second round of the country's presidential election, did not improve at all Russia's image as a reliable energy supplier. At the same time, the Belorussian leader on the eve of the Memory Day 22 June acquired additional arguments for his anti-Russian rhetoric.

Western experts point out, however, that energy arguments have been only a cover for political differences. In this context, they attribute this conflict to Belorussia's efforts to use its demands that petroleum supplies from Russia should be exempted from customs

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duties, as an instrument to hamper the creation of a customs union with Kazakhstan and Belorussia. The present confrontation is the fifth in the almost 20-year period of relations between the two now independent countries. A particular feature of the present conflict is the lowest agreed level of indebtedness, which forced Gazprom to resort to repressive measures.

Ukraine, for its part, in assessing the conflict situation with Belorussia proposed increasing the Russian gas transit to Europe across its own territory, which caused certain anxiety in Minsk. It is worth looking at a similar situation with Belorussia during the conflict between Russia and Ukraine. A simultaneous conflict tension in relations with these transit countries would drive Russia and Gazprom into a difficult situation.

In spite of the fact that the EU and U.S.A. remained rather unruffled by the latest gas conflict between the Russian Federation and Ukraine, the analytical community in Europe in its paper *EU Security 2020* made the conclusion that Europe, facing as it did a stronger challenge than what had been the case previously, should minimize the so far considerable energy dependence on Russia with its authoritarian methods of management.

The EU plans to carry on with its policy of diversification of energy deliveries. The fact that all gas pipelines from Russia run westward was an axiom for EU analysts. The gas conflict following which European countries found themselves helpless in energy supplies prompted them to reassess the situation. It is not only Russia that suffers economic and political losses from gas delivery interruptions – these actions, if they repeat, will threaten the image of the European countries' governments. The population in these countries, accustomed as it is to certain standards of living, showed anti-Russian sentiment and drove the governments to look for other ways to ensure energy security.

The EU maintains that there is a high probability of new conflicts and has therefore launched an active development of alternative energy sources. There are numerous comments associated with large reserves of shale gas in Poland that are considerably greater than the country's own demand in gas. Furthermore, licenses of Conoco, Phillips, ExxonMobil and Shell for shale gas production have been traded not only in Poland, but also in Sweden and Germany.

Given the skeptical attitude that a number of Russian experts display towards this kind of information, I would point out that development of technologies of shale gas production in the U.S.A. made it the world's largest natural gas producer, and cut down the domestic demand for liquefied natural gas, the latter fact bringing about Qatar's reorientation towards Europe. Amid the LNG supplies offered at a price of \$120 for 1 thousand c.m., the arrival of large volumes of shale gas will tilt the balance towards excessive supply. It will take the gas market a certain period of time to restore the even balance. Shale gas producers will score profits even with the current price levels, and this will render uneconomical any development of new traditional gas fields. According to some estimates, development of the Stockman gas fields in Russia is economically viable at a wellhead price of \$220 per 1 thousand c.m.

The share of alternative energy in the balance of a number of countries in the EU reaches 20% at the most (21% in Austria). Among the European companies that won tenders for construction of large wind farms are RWE, E.ON and Siemens. RWE and Siemens will build wind farms in the North Sea and Bristol Bay, while E.ON will install a wind power station in the English Channel. The overall cost of the project to build a series of marine wind stations (32 GW) is estimated at 110 billion euros, as compared to

the 7 billion euros estimated cost of the Nabucco project. Nine European countries will create a united network of renewable energy sources (Germany, Great Britain, France, Belgium, Denmark, the Netherlands, Ireland, Luxemburg and Norway).

A possible change of traditional directions of gas deliveries is now discussed. Easy to carry out, inexpensive and not complicated from the technological point of view, it may deprive Russia of traditional customers. Ukraine's planned prolongation of the Odessa-Brody oil pipeline to Gdansk will form a new link in the transport corridor Central Asia – Central Europe and become a direct competitor of Russian oil and gas export routes. With this factor in view, the EU may further on cut down on its cooperation with Russia.

In spite of a measure of animation of the market, Gazprom keeps its plan of natural gas production at the level of 519.3 billion c.m. in 2010. Gas exports have gone down to 140.2 billion c.m.

There is another characteristic example of interrupted supplies. Turkmenia planned to produce in 2009 more than 75 billion c.m. of natural gas of which more than 51 billion c.m. were earmarked for exports. In April 2009, following an accident, transportation of Turkmenian gas to Russia stopped. This gas confrontation between Russia and Turkmenia came to an end in January 2010. Russia managed to achieve a 40% reduction in the volume of purchases of Turkmenian gas and lower prices. Let me recall that Gazprom announced transition to European prices in its relations with Turkmenia back in summer 2008. The prices for Turkmenian gas set at the European level were not subject to changes throughout the entire year. Consequently, after the prices fell on the world market, Gazprom, finding itself overpaying considerably for Turkmenian fuel, announced its desire to reduce the Turkmenian gas imports, and unilaterally cut down its purchases. The accident that occurred caused a conflict that prevented resumption of deliveries. The interruption of exports threatened Turkmenia with losses of more than \$1 billion.

Turkmenia attempted to bring pressure to bear upon Russia, declaring that it was prepared to deliver its gas to the Nabucco pipeline, and in November announcing its plans to step up deliveries to Iran. An additional blow on Gazprom's strategic positions in Asia was the commissioning of the Central Asia – China gas pipeline (capacity of 40 billion c.m. a year). This pipeline will bring gas to China from Turkmenia, Kazakhstan and Uzbekistan, Gazprom's traditional partners in Central Asia. And they jeopardize Russia's price strategy in the PRC.

The construction of the gas pipeline to China is a result of the PRC's well-thought-out strategy to diversify its energy supplies. China invests heavily in this strategy and optimizes its expenses. It pays for the gas partially within a barter scheme and partially with the help of low interest credits. Thereby, China frees itself from dependence on energy supplies from the Middle East.

A further example of limitations on supplies is associated with Turkmenistan, which suspended its gas deliveries to Iran in 2008. According to statements from Turkmenistan, the problem arose because Iran failed to provide full payments for gas deliveries the previous year. Iran, for its part, declared that the exporter (viz. Turkmenistan) had referred to technical problems. As a result, Iran cut down its gas exports to Turkey by 75%. Experts pointed out in this context that usually in the case of underpayment for gas the importer is first sent a warning and given time to remedy the situation.

In spite of all these problems, Turkmenistan declares that it cooperates effectively in energy deliveries with the Russian Federation, Iran and the PRC, and also asserts that the talks with the European Union and Turkey are acquiring positive dynamics. The trilateral meeting of Presidents of Turkmenistan, Azerbaijan and Turkey on the Turkmenian Caspian coast demonstrated that it was not a matter of replacing current energy supplies with deliveries from other sources. What was at issue was expanding, supplementing and assessing in practical terms the countries' own resource potential.

Consumer protection against shortfalls in deliveries, restrictions and other similar strained situations is viewed as part and parcel of political standards of the international community aimed above all to ensure diversified energy supplies and create the countries' own strategic potential.

In this connection, access to resources becomes the main issue. In tackling it, all instruments to exercise influence from the outside come into play – economic, political, military. Considering the fact that for at least another 25 years oil and gas are going to remain the chief energy resource, the leading members of the international community will focus their efforts in foreign policy on upholding their positions on this market.

A characteristic example: from the mid-'70s, the U.S.A. has recognized its own dependence on the petroleum factor and shifted the emphasis from the Caribbean region to the Persian Gulf. The 1973 crisis caused a nation-wide stress. The Carter Doctrine was formulated allowing for U.S. military intervention in the Middle East. Following the Iraqi army's invasion of Kuwait, it became evident for the U.S.A. that the oil fields outside the OPEC did not ensure required security for the American market and there was a potential threat to the national economy. After the Iraqi leadership with its actions in Kuwait opened the way for U.S. "legitimate" intervention in this country, the United States structured its system of relationships with the OPEC countries that became a suitable partner for the U.S.A. what with the absence of any military counterbalance, and with an opportunity to influence the petroleum producing countries that could make up for the losses by boosting the production. Thus, the losses in Kuwait and Iraq petroleum were compensated by Saudi Arabia (from 5.4 million way up to 8.2 million barrels a day).

The administration of George Bush, Jr., formulated a program for control over the global energy resources that ruled out and prevented energy dependence on politically unstable regimes and governments that threatened U.S. interests. The "arc of instability" according to George Bush is Africa – the Caucasus – the Middle East – Central Asia – North Korea – Southern Asia. The military bases ensure tranquility in the Gulf area. Agreements with Nigeria and a number of countries in Western Africa will in perspective serve to establish American control in the Gulf of Guinea. As Richard Cheney registered, "energy security is a priority of national trade and foreign policy".

A quarter of American petroleum imports comes from Middle East countries, Japan buys up to three-quarters of its petroleum in the Persian Gulf, and China acquires up to half of its petroleum imports in the Middle East. An interruption or fall in the cheap oil deliveries from the Middle East region leads to price hikes and additional offers from other producers. The OPEC controls up to 40% of petroleum production and up to 60% of exports. With the low operational expenses per barrel in the Persian Gulf countries (from \$0.55 to \$2.1), the OPEC is able to boost its share of the oil markets. The potential increment of production by the OPEC countries amounts to 7 million barrels a day.

The perennial problems of the modern economy, resources and marketing (demand), will always be tied up with the problem of energy security. Suffice it to look at the Arctic where, considering the melting away of the Polar ice cap, the hydrocarbon reserves become more commercial. Territorial claims are already made, borders are disputed, and tensions increase.

Controversies continue around the development of world nuclear energy. The large uranium deposits explored in Australia and Kazakhstan will in the near future determine new partners for these countries wishing to acquire access to the promising fuel.

In essence, *it is creation of a new system of energy security, universal and meeting the demands of present-day reality, that is becoming a topical problem today.* Availability and accessibility of fuel and energy resources, ensuring their reliable deliveries to consumers, and their efficient use, become paramount factors of the world economic development. The system ensuring energy security is subject to various threats of both short-term and long-term character. Understandably, ensuring global energy security depends directly on the appropriate measures to be taken by the states concerned. Formulation and delimitation of energy security criteria, and also disclosing threats and risks to security are instrumental in mapping out adequate foreign and domestic policies.

There is no reason to look for threats in diversification of deliveries of energy carriers. Rather, this is a stabilizing factor that implies efficient multilateral partnership over the issues of protection of the energy infrastructure, and creation in international politics of favorable conditions for its normal operation and for constructive cooperation by all participants in the market of energy resources.

Andrey V. Zagorsky,

Professor, Moscow State Institute of International Relations (MGIMO), Russian Foreign Ministry

When Does Nuclear Power Engineering Find Itself on the Turf of Politics or Regional Tensions?⁵

The issues of international (regional) security in nuclear power engineering mostly arise within the context of two themes:

- the danger of the “horizontal” spreading of nuclear weapons, with Non-Nuclear Weapons States developing the technological and industrial potential that can be used to create a nuclear weapon in circumvention of the Nuclear Non-Proliferation Treaty (NPT), as they master a full nuclear fuel cycle, including its most sensitive elements, such as uranium enrichment, handling spent nuclear fuel and heavy water, operating HEU-fueled research reactors, and using fast neutron reactors that produce plutonium.
- more stringent requirements for nuclear safety, in particular the physical safety of fissile materials, with the view of preventing their getting into the hands of radical and/or terrorist organizations, which would use such materials for creating a radiation weapon (“dirty” bomb), if not for a nuclear explosive device.

International disagreements arise over the measures necessary for preventing the proliferation of nuclear weapons (including counter-proliferation”), critical fissile materials and technologies, as well as in the event of proven or supposed violations of non-proliferation commitments (North Korea and Iran’s nuclear dossiers).

Of certain significance are the substantiated (or unsubstantiated) assumptions by participants in the market of fissile materials and technologies that restrictions on trade in fissile materials and technologies are sometimes motivated by the considerations of not so much strengthening non-proliferation as unfair competition.

Non-proliferation problem in the Euro-Atlantic region

Many countries in the Euro-Atlantic region (including Russia), as well as Japan, have technologies and the industrial potential to produce nuclear weapons.

However, the problem of the “horizontal” proliferation of nuclear weapons is not on their agenda, save for the speculations over the hypothetical possibility that Japan, with its huge reserves of plutonium, might withdraw from the Nuclear Non-Proliferation Treaty in response to further spreading of nuclear weapons in East Asia. The countries of Euro-Atlantic region make consistent calls for keeping and enhancing the effectiveness of the international nuclear non-proliferation regime (regimes).

At the same time, the region is an example the most intensive peaceful use of nuclear energy. Therefore, it is facing problems (as are other regions) of ensuring or enhancing nuclear safety.

Countries of the Euro-Atlantic region, together with a number of states in East Asia and Latin America, are among the leading exporters of nuclear technologies and dual purpose materials. In this connection, doubts have been repeatedly voiced about their

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bona fide commitment to non-proliferation regimes, which made competition part of their relations, in the first place on the markets of third countries.

There is a high level of coincidence of interests of Euro-Atlantic region countries in keeping and strengthening the nuclear non-proliferation regime, and a high level of cooperation in ensuring and enhancing nuclear safety both in the Euro-Atlantic region and elsewhere.

At the same time, they disagree over additional measures to enhance the effectiveness of the nuclear non-proliferation regime or resolve the concrete proliferation problems (North Korea, Iran). While remaining committed to the general objective, the differences in the approaches to the solution of concrete problems are most noticeable between Russia and NATO and EU countries, and sometimes occur between members of these organizations.

Enhancing the effectiveness of international nuclear non-proliferation regime

The NPT brings together an overwhelming majority of bona-fide signatories. Discussions over strengthening the non-proliferation regime mostly start in connection with

- the occasional proven or suspected violations of commitments by individual NPT participants (Iraq, North Korea, Iran)
- the potential danger of further proliferation of nuclear weapons in the Middle East and East Asia in case North Korea and Iran realize their nuclear ambitions;
- the existence of three “unofficial” Nuclear Weapons States (Israel, India, and Pakistan) that have not joined the NPT and
- the expectations of the “Renaissance” in nuclear power engineering, which would increase the number of states operating nuclear power plants or developing various elements of the nuclear fuel cycle in their territories, including the most sensitive ones.

In a bid to minimize the proliferation risks stemming from a broad use of nuclear technologies, the parties concerned initiated discussions that show both the elements of a consensus between Euro-Atlantic states and their disagreements, such as Russia’s relations with western countries. The discussions over the means to strengthen nuclear non-proliferation focus on the following proposals:

- the U.S. Global Partnership Initiative in nuclear power engineering, offering the countries that do not possess a full nuclear fuel cycle to voluntarily renounce its most sensitive elements, in exchange for easy access to the nuclear fuel cycle services of developed countries;
- the broadly discussed options to internationalize the services of a (multi-party) nuclear fuel cycle under the aegis of the International Atomic Energy Agency (IAEA), with the guarantee to provide them to all countries that meet the NPT requirements (these proposals include the international uranium enrichment center in Angarsk and the idea to set up a nuclear fuel bank under the IAEA aegis, supported by Russia;

- giving mandatory force to the additional protocol on IAEA guarantees, which authorizes the Agency to inspect, on short notice, any facility in Non-Nuclear Weapons States, not only the declared ones or those under international guarantees.

Despite certain differences, the countries of the Euro-Atlantic region are at one in understanding the necessity to strengthen the guarantees of nuclear non-proliferation amidst the on-going development of nuclear power engineering, though not as turbulent as suggested in the discussions over the “nuclear Renaissance.” No do they have insurmountable differences over the concrete proposals to enhance the effectiveness of the nuclear non-proliferation regime.

The parties mostly differ in the methods to introduce the proposed measures: whether they should be imposed or offered as free choice to developing nations. Russia is inclined to favor the second option, underscoring the right of all states to a peaceful use of nuclear energy, including the development of a nuclear fuel cycle under the IAEA aegis. Russia, however, would have welcomed the renouncement by non-nuclear states of the development of the sensitive nuclear fuel cycle elements in their territory.

A number of countries, Russia included, have doubts regarding the expediency of a multi-lateral nuclear fuel cycle, and especially the establishment of a nuclear fuel bank under the IAEA aegis. These doubts are foremost caused by the apprehensions regarding a possible distortion of pricing on the market of nuclear fuel, which has nothing to do with regional or international security.

Nuclear safety problem

The nuclear safety problem covers a broad range of issues related not only to weapon-grade fissile materials, technologies, components and ammunition of Nuclear Weapons States (both official and unofficial), but also to the civil sector, including control and stock-taking of fissile materials, their physical safety etc.

Problems in this field exist in countries of the Euro-Atlantic region to this or that extent, but for the most part, they are found in third countries that are developing their own nuclear power engineering; they often lack the experience and funds to install complex and expensive modern systems to ensure a proper safety of nuclear facilities and materials.

As the April nuclear safety summit showed, an approach based on cooperation prevails in the settlement of these issues.

Cooperation was groundwork for settling many nuclear safety issues (in the first place in the military, rather than the civil sector) in the Russian Federation in partnership with western countries, foremost the United States. Similar approaches to enhancing the nuclear safety standards, based on cooperation and provision of technological assistance, are now offered to developing nations.

The Russian Federation closely cooperates with the USA in ensuring the safety of Soviet-made fissile materials in third countries (such as bringing to Russia highly enriched nuclear fuel used in research reactors of Serbia, Libya, Uzbekistan, etc.) The problems and disputes in this field, if any, tend to be special cases and do not disrupt the general mood to cooperate.

Pooling the efforts of Euro-Atlantic region states

Enhancing the effectiveness of non-proliferation regimes as nuclear power engineering continues to develop on a global scale is one of the guidelines along which it might be possible to step up the consolidated efforts in the Euro-Atlantic region.

We are brought together by the commitment to the objective of nuclear non-proliferation, the common (though not fully coinciding) ideas of the measures toward enhancing the effectiveness of the relevant international regimes, as well as close cooperation in enhancing the level of nuclear safety in Russia and third countries.

The main guidelines for stepping up this interaction are:

- working on practical issues to implement numerous initiatives towards a multi-party nuclear fuel cycle, by launching such projects with active participation of the Russian Federation;
- cooperation in implementing the projects to enhance nuclear safety in third countries using Russia's experience and with its participation in the capacity of donor, not a sub-contractor;
- coordination with the leading western states, and within the framework of the five permanent UN Security Council members (and involving China) of the general strategy to enhance the effectiveness of international nuclear non-proliferation regimes, in particular making the additional protocol on IAEA guarantees a universal instrument – the guarantee of a peaceful nature of the relevant programs by Non-Nuclear Weapons States.

In certain cases, we will have to take into account the differences in accents in the policy of Russia and western states (not just the USA) with respect to the states regarded as NPT violators (Iran) or potential violators (Syria). However, these issues are outside this agenda (inasmuch as they concern the guarantees that the NPT's Non-Nuclear Weapons signatories do not use nuclear power for military purposes, they are covered by the theme of enhancing the effectiveness of the IAEA guarantees, for example, under the additional protocol).

To be able to settle the controversial issues in the nuclear programs of individual states, it is important to envision a mechanism to remove the issues of abusing the non-proliferation regimes for the sake of unfair competition. For example, such issues arise in Russia's nuclear power engineering. The ensuing rows negatively affect its cooperation with other countries.

To this end, it is necessary to bring it home to all the nuclear market participants that the existing international restrictions facilitate a fair competition on the world nuclear market and that they are not discriminating.

The alternative to such international accords would be a unilateral prohibitive policy by nuclear states. It would be discriminating and cause abuses, giving no guarantees of the effectiveness of the non-proliferation regime.

Boris N. Porfiriev

Professor, Doctor of Economics, Head of Laboratory,

Institute of National Economic Planning, Russian Academy of Sciences

Global Climate Change: a Threat or a Factor of International Security?⁶

I. Global climate changes and their consequences for international security, national and regional as well, (further in the text, security) are of contradictory nature. On the one hand, they generate threats to security, and on the other, create practical opportunities for alleviating or blunting the edge of these threats.

II. The global climate changes and their consequences generate *threats to security* in two ways. In the first place, directly (*direct threats*), that is, a significant change in climatic conditions of people's life, production and economic activities, trade, etc., including the warming and abrupt ups and downs in temperature and rainfall, and so forth, entails the risk of deteriorating situation in the economic and social spheres.

a) In the long term, the rise of the World Ocean's level creates risks of inundation of a considerable portion or the entire territory (island states) of certain countries, which puts into question their very survival. In the area of *environmental security*, the main risks are associated with dwindling biological diversity, extinction of certain species of flora and fauna that are of enormous importance for preserving ecosystems of the Earth. Besides, the growth of the destructive power of dangerous hydro meteorological phenomena expected in connection with the said climate changes entails the risks of additional considerable material damage and loss of human life (for the least developed and small island states, this actually means a threat to their *economic security*).

b) On the whole, the main threats in the area of *economic security* are associated with weather-sensitive sectors of the economy, in the first place – agriculture, forestry, water management, transport and tourism, which contribute no less than one-third to the aggregate world GDP. The damage incurred by these sectors amid the current trends in climate change, including extreme and dangerous natural phenomena, may reach an average of 2-3% of the GDP annually. Especially sensitive are threats to food supply security, considering the fact that lower crop yields in agriculture and rising prices for agricultural products are forecast for a large part of the world economy in the period up to 2030.

c) In the area of *social security* (including biomedical security) the main threats are associated with mass deterioration of the population's health and mortality rates following an increase in the sickness rate. As an example, an increase in the rainfall entails a growth in epidemics following expansion of swamped territories, while the warming-up is accompanied by other consequences harmful to human health, including heat waves. In addition, this is a matter of a threat to the systems of the population's sustenance, including fresh water supply in the regions and territories that are going to suffer from droughts increasingly frequently and ever harder.

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d) It is critically important that the countries and regions most vulnerable to these consequences of climate change are above all Africa, Southern Asia and other areas with the most widespread poverty, social unrest and interregional conflicts – wars as well, including those over access to water and other key resources. In this group of countries, climate changes thus lead to aggravation of conflicts and fuel tensions in international relations. At the same time, climate changes resulting, in particular, in marine ice caps ablation opening a better access to resources previously hard to reach, like on the Arctic shelf, create the risks of greater tensions and conflict situations emerging over a new "resource bonanza", and this already in the G8 and G20 groups of countries, that is, risks in the sphere of *military-political security*.

III. Global climate changes are fraught with *indirect threats to security* that are associated not with these same changes or their immediate consequences for the population, but rather with the state's (or states') policies with regard to the climate problem and the means chosen to alleviate it. (Within the institutional theory, they can be termed as negative politico-climatic externalities.)

a) The main strategy in tackling the problem of global climate change in most of the G8 and G20 countries is development of a "green" economy oriented towards saving resources and their efficient use. This, in the first place, involves energy saving and energy efficiency, which provides for reduction in the greenhouse gas emissions along with accelerated modernization of the economy and its transition to new technological patterns, which all combined enhances the economy's competitive ability. As a case in point, the EU's new economic strategy *Europe 2020* endorsed at a summit meeting on 17 June this year defines the aim of the green growth policy as ensuring the competitive ability of manufacturing industries in the post-crisis world. This process entails emergence of new forms of economic competition, new types of financial soap bubbles (like ones on the fast rising carbon market), and so forth. This generates risks of crises, trade wars and other threats in the sphere of *economic security*.

b) The latter may include threats to *security in the trade and economic spheres* in the form of so-called carbon barriers. They should limit the access to the markets for goods and services with a high potential for carbon carrying emissions, or produced with application of energy-intensive technologies, which includes a considerable proportion of exports of feedstock-oriented economies, the Russian economy as well. While not denying that this kind of measures do have an environment-protective component (including protection of the climate), it is at the same time obvious that they contradict the current WTO provisions, and this creates a threat of tensions arising in international commercial and political relations. .

c) Development of certain new industries of the "green" economy leads to reduction of employment in other sectors with no compensation by new jobs created. This aggravates the problem of unemployment and heightens the threat to *socio-economic security*. In addition, any excessive emphasis on development of nuclear energy as an alternative to fossil fuel operated energy, or its rashly accelerated development, is fraught with risks of large-scale disasters and, furthermore, of violations of the non-proliferation regime, which means, respectively, threats to *socio-environmental and military-political security*.

IV. At the same time, global climate changes and their consequences are instrumental in **lowering the risks and threats to security**, and this also in two main ways. In the first place, *directly, through improvement of people's living conditions, their economic activities, trade, etc.*

a) In the area of *socio-economic security* the climate warming in a portion of the world's territory alleviates the risks of mass epidemics of catarrhal diseases and ensuing impaired people's health and production activities. Besides, in the northern countries, including Russia, the warming entails a shorter heating season and savings in fuel, which means a chance to save resources and to reduce hazardous emissions into the environment (advantages from the point of view of *environmental security*). These countries can also expand their farming areas, with the vegetation period growing longer, which may be helpful in the development of the agricultural sector, growth of agricultural production and employment in this sector, which, accordingly, lowers the risks in the sphere of *economic, food and social security*. In this connection, the forecast consequences of climate changes, mentioned above in a negative context as lower yields of agricultural crops and price rises in considerable areas of the world economy in the period up to 2030, will have a positive effect for this sector of the economy, stimulating production and bringing about an increase in the incomes of the agrarian population.

b) The same way, an easier access to natural resources following the trend towards the seas clearing of the ice mentioned above in a negative context, means at the same time lesser dependence of a number of national economies on imports of the resources in question, coupled with an opportunity to obtain their own additional incomes from these resources, which all combined alleviates the threats in the sphere of *economic security*. Besides, the above trend creates additional opportunities for development of transport and lower risks in navigation, that is, it brings about a certain improvement of the situation in the sphere of *transport security*, including international haulage operations. For example, even partial ablation of ice along the Northern Sea Route and the Northwest Passage increases the potential for maritime traffic, prolongs the navigation and improves its conditions, respectively, for Russia and the U.S.A. Another example that has to do with this aspect of security concerns road transport, and is associated with shorter periods of glaciation of highways.

V. Global climate changes are instrumental in alleviation of security problems in an *indirect way*. The same as in the case of increasing threats to international security, this is associated not with these very changes or their positive effect for the population and national economies (some of these are mentioned above), but rather with the states' policies with regard to the climate problem and ways to lessen it. (Within the institutional theory, they may be termed as positive politico-climatic externalities).

a) The above general strategy to solve the climate problem through development of a "green" economy includes development of new technologies that provide for saving resources and their efficient use, energy, above all, and for protection of the environment. This helps strengthen *environmental* and *energy security* (lowering dependence of the fossil fuel importing countries on deliveries from foreign sources), and *economic security* overall. Apart from that, modernization of monitoring and warning technologies covering dangerous hydro meteorological phenomena, and of insurance systems against natural (climatic, too) disasters and calamities enhances the efficiency of *civil defense* systems that provide for security of the population in emergency situations in peace time.

b) The above mentioned negative impact that development of a number of industries of the "green" economy should have on employment in a wider context and with a change in the mechanisms stimulating environment-friendly energy production, is replaced by a positive effect of general growth of employment and reduction of structural unemployment, both providing for *socio-economic security*. In early 2010, overall employment in this new segment of the world economy amounted to around 5 million persons.

c) The "green" economy's contribution to the development of the world economy has not been considerable so far, but it increases fast turning this economy into a new dynamic factor of economic growth, that has, moreover, a powerful and, as the experience of the current economic crisis indicates, an appreciable anti-crisis potential.

VI. In a mid-term (period up to 2020) perspective, the role of the "green" economy overall and environment-friendly economy, in particular, may increase perceptibly, considering its present-day rates of development. They are spurred on, in the first place, by the requirements of modernization and enhanced competitive ability of national economies, and also by environmental factors. The latter include, inter alia, the necessity to lower the risks of the disasters like the oil spill in the Gulf of Mexico in April-May 2010. Indeed, with all other things equal, environment-friendly technologies and production facilities are smaller in scale and safer than the 20th century industrial technologies. All combined this, I would say, indicates that the "green" economy has a considerable potential for consolidating *socio-economic and environmental security*.

VII. **Conclusions.** Global climate change is a new important factor of international security that both carries threats (risks) and offers opportunities for strengthening that security. Taking this factor into consideration fully and with no delay, complete with all contradictions inherent in it and in interaction with other factors of international economic and political relations, is an imperative in working out and adopting strategic decisions, in which the criterion of efficiency is consolidation of international security.

Viktor I. Danilov-Danilyan

Corresponding Member of the Russian Academy of Sciences

Director of the Institute of Water Problems, RAN

The Problem of Access to Resources as a Source of Tensions Among States⁷

The shifts in the world economic system and in political and social spheres that took place in the course of historical development have more than once changed ideas about application of armed force and war as a method of achieving economic goals. No one any longer today needs a result like capturing slaves. Extremely doubtful is also the very opportunity to use armed force to seize gold, other precious metals, precious stones or other "movable" treasures. Of all that may be obtained this way, the only attractions that still remain are territories, natural resources and access to them. However, the attitude towards attractions of this kind, determined by the ways and means chosen to use them, depends significantly on the level of economic development of a country that casts its eye on someone else's possessions.

Foreign territories (the surface, not the subsoil) as an economic asset no longer interest the countries that have risen to the post-industrial level. Practically all of them have achieved self-sufficiency in food supply, they have no excessive population of their own, and no need or opportunity for colonization in the spirit of Antiquity or the first centuries of New Time. They are much more concerned about protection of their territories against uninvited migrants. It is another matter when it comes to mineral resources, especially (at the present time) petroleum, natural gas and forests, and access to them. In this case, the post-industrial countries are after not only having their economies provided with these raw materials, but provided reliably, and reliability is achieved in the first place through competition existing among the suppliers.

In a globalizing economy, the competitive environment emerges everywhere on the resource market where there are no natural obstructions and restrictions working against it. The latter may be associated with a unique nature of the resource in question, or its short supply, or its highly uneven geographic distribution coupled with high transportation intensity of the feedstock in question that considerably hampers its delivery (and, consequently, increases the costs) to certain consumers and even renders it economically unreasonable. For the post-industrial countries, of all types of mineral feedstock it is only in the case of natural gas that discomfiting restrictions of this kind exist.

Considering all the accompanying political and social circumstances, for a modern post-industrial state, economic spoils, whatever they are, obtained by military action are much smaller than the expenses for the preparation and conduct of this same action, coupled as they are with the inevitable direct and indirect damage caused by this action. It seems that the awareness of this has become practically universal in the post-industrial world. In order to create the conditions for access to other countries' resources, post-industrial countries that are interested in them prefer to resort to economic methods. Even the policy, widespread in the latter half of the 20th century, of

⁷ Author's theses

inciting conflicts among local warring factions or even states to attain their goals is less efficient.

This, however, does not concern political results that, unlike the economic results, not only cannot be quantified (even with great approximation, in several differing scenarios, and so forth), but are not always articulated sufficiently clearly at a verbal level. These results also include some super-long-term economic advantages that consist in providing access to the desired resources in a rather far-off future, when the moment of their active employment is so distant that no economic estimates are good for comparing the cost and effect, since it is simply impossible to obtain any reliable economic information. But it is this uncertainty determined, above all, by the inevitable and ever accelerating scientific and technological shifts that is the chief argument working against the forcible approach, and in this case the costs are quite high, while the results are highly doubtful. So doubtful that it is not even clear whether they are going to have any real value when the time comes for practical access to the resources that today look attractive.

Hence the post-industrial states' interest not so much in resources themselves located outside their own territories, as in formation of the competitive environment that opens unlimited opportunities for them to use foreign resources on acceptable economic terms, and in formation of conditions that provide for the operation of those economic mechanisms that are suitable to these states and work for the post-industrial economy. This environment, these conditions are precisely the globalized economy that requires a relevant world order. This approach is in full harmony with other provisions and targets in the efforts to direct the globalization process into the channel that post-industrial countries need, and also with the role of the "head manager" that the U.S.A. has chosen for itself in this process.

The states with a predominantly agricultural or/and industrial orientation of their economies have a feeling of being exploited on the present-day world market, and not without reason raise the question of unfairness of distribution of the world product (although the most difficult thing in substantiating this claim is interpretation of the notion "fairness"). They have a different view of the issue of access to resources than that of the post-industrial countries. Although elements of post-industrialization are discernible in the economies of most developing countries (indeed, these elements in many cases already play quite a significant role in their economies), the public attitudes towards the "foreign that we need" still carries rudiments of public consciousness of the agrarian and industrial stages of development. If the economy develops owing to the agricultural sector, they look to the neighbors' land and especially water. If the locomotive is the mining industry, they display their heightened interest in mineral deposits in adjacent, yet foreign territories. The same circumstances lead to numerous civil wars in the third world, to separatist movements, and ethnic and confessional conflicts within the boundaries of one or another country. However, since these conflicts do not encroach in any way significantly on the interests of post-industrial countries and present no threat to world order, it is highly improbable that this strife may develop into regional conflicts (global, the less so).

It would seem that in the second, or, possibly, third quarter of the 21st century, the resource that with its shortage will to the greatest extent serve as the cause of tensions in international relations, will be fresh water. This shortage will also become one of the resource factors determining the transformation of the real sector of the world economy.

Fresh water is a resource rather specific in every respect, and the problems associated with it are worth examining in detail.

Global water consumption has been fast growing for more than 100 years and will continue to grow for another several decades. At the same time, the amounts of economically accessible fresh water resources are shrinking as a result of adverse anthropogenic effect on nature's water reproduction systems. According to extrapolative forecasts, the volume of water consumption will at some point between 2025 and 2035 become equal to its resources (it is not water consumption per se that is extrapolated in this case, but the consumption determining factors – the size of the population, end consumption level and quality of life, industrial structure, etc.). This forecast is obviously an indicator of a most acute crisis. However, not all the water resources that may be classified as economically accessible will be in use even in 2035. The point is that they are located in water-sufficient countries – Brazil, Russia and Canada, and involving them in the economic turnover in territories lacking a well developed infrastructure is a highly complicated problem. Therefore, part of these resources cannot be regarded as promising a significant economic advantage even with the shifts in price ratios expected on the world market. It follows then that a global water crisis may arise even earlier than what the extrapolative forecast indicates.

What are the economic, social and political consequences that the threat of a global water crisis will lead to? What kind of new tensions can it bring about in the international situation? The answer depends on whether the transformation of the real sector will come under the impact of spontaneous forces of economic and social development (market, above all), with civilization powerless to meet the challenge, or whether it will result from target action aimed to provide for sustainable development of civilization in the conditions of global shortage of fresh water.

Involvement into economic turnover of new water resources is becoming more and more expensive as water consumption grows. Expenditures on water transportation to satisfy industrial and agricultural requirements rise steeply when it is a matter of crossing the boundaries of the drainage area. Let me emphasize that here we mean industrial and agricultural use of fresh water, not bottled drinking water that accounts for only a negligible fraction of the total water consumption. Here are some examples that give an idea of water requirements of various industries. Production of 1 ton of nitrogen acid takes from 80 to 180 c.m of fresh water, for cotton fabric the figure is 300-1,100 c.m., synthetic fiber – 1,000 c.m., cellulose – 200-400 c.m., rubber – 2,500 c.m., and synthetic fabric – 2,000-3,000 c.m. Huge amounts of water are consumed by power stations for cooling their generating units, and a considerable proportion of this water (up to 1/3) is lost as irrecoverable. For example, a thermal power station with a capacity of 1 million kW needs 1-1.6 cubic kilometers of water a year, and the figure for a nuclear power station with the same capacity is 1.6-3 cubic kilometers. The bottom levels in these figures relate to the best technological equipment. To grow 1 ton of wheat sold on the world market it takes on the average 1,000 cubic kilometers of water.

When they speak of a sharp rise in the water transportation costs in crossing boundaries of drainage areas, this is correct exactly for large-scale water use typical of industrial production and agriculture (the problems of drinking water supply are a different matter). The transportation expenditure hikes is one of the chief reasons why water cannot be traded the same way as petroleum. Another reason is the giant difference in physical volumes of water and petroleum consumption (hundreds of times). A predominant share of the water sold goes to redistribution inside the drainage area, and

this will continue in the future, too. The water market in itself will never play the same role in water use as the oil market does in energy consumption, these are things absolutely incomparable. In order to solve the water supply problem for modern civilization, to prevent the often predicted conflicts over water, entirely different strategies are needed. Mitigation of the water shortage in the countries where the problem is already in evidence and will worsen more and more, is possible through large-scale application of water saving technologies and closure of water-intensive production, with its output replaced by imports. In the sector of water-intensive production where we still do not know how to manage it without great water expenditures, the suppliers on the world market may only be the countries possessing water resources in excess of their domestic demand. These, very few countries include Russia, too.

Let me emphasize that the market of water-intensive products is a market of products, not raw materials. It is not enough for a country to have only reserves of natural resources to participate effectively in this market as a supplier – it also needs to have production facilities that use them. The resource that is used, fresh water, is renewable and non-depleting (naturally, with water protection regulations observed, and hydrological and environmental standards of exploitation fulfilled). Besides, this is a resource that cannot be replaced by any other, its substitutes may only theoretically be its competitors and even thus only up to a certain limit.

The restructuring of the world economy under the pressure of a threatening global water supply crisis should create exceptionally favorable conditions for water-sufficient countries, since a higher demand and price rises for water-intensive output are inevitable. Water exporters will be in a situation similar to that of today's wealthy petroleum exporters. This opportunity may be used only on the condition of serious preparations for development of water-intensive industries working for exports.

Russia's interests in this respect coincide entirely with the interests of the world community. Many countries will look for water-intensive products, and we shall benefit by meeting this demand, because this is an issue of not only efficient development of our economy, but also of our security and Russia's stable positions in the world.

In the conditions of a global water crisis, the world community will regard water security as a system of distribution of water and water-intensive products in which no threat to world stability emerges because of water wars, water terrorism, and so forth. Accordingly, the world community will be highly interested to see how efficiently the water resources are put to use in the areas where they are in ample supply. Then the notion of water security at a national level will imply, first, meeting the demands of the country's economy in water resources, and, secondly, whether nationally excessive water resources are used efficiently in accordance with the requirements of the world community. In order that the problem of water shortage in the world economy should not grow into a threat, but, on the contrary, provide a new source of wellbeing for the country, we should set about resolving it with great attention, care and sense of responsibility.

Zhanna A. Zaionchkovskaya

Head of the Migration Analysis and Prognostication Laboratory, INP RAN,

President of the Center for Studies of Forced Migration in CIS, Member of the Board of Russia's Federal Migration Service

Demographic Problems of the Euro-Atlantic Region⁸

The effect of the demographic situation on security is manifest in three aspects. As a threat to:

- economic development;
- social and political stability; and
- the geopolitical situation in the region.

The interpretation of a threat to demographic security as "a threat to vitally important interests of society" corresponds to the context of the general definition of threats to security as offered by V. Baranovsky⁹.

The demographic situation in the greater part of the European region that is home to 60% of its population, the European Union and Russia, is very similar in its main features. The trends fraught with threats to security have a lot in common, although they are manifest to varying degrees.

The most characteristic features of the demographic situation in the European Union and Russia are as follows:

- Extremely low or even downward growth rates of the population. In 2001-2007, Europe's overall population grew only by 0.5%. Within this, Russia lost 2.7%, and other European countries gained 1.4%. Since the population of most countries in the rest of the world has been fast growing, Europe's share in the world population will fall from 11.1% in 2007 to 9.1% in 2025 (including for Russia, from 2.1% to 1.7%, and the rest of Europe, from 9.0% to 7.4%).
- A sharp reduction in the labor resource potential. A process of really landslide natural decline in the population of employable age has been underway in Russia since 2007 and in the European Union since 2010, which, as forecasts have it, in its duration (at least up to the middle of the century) and depth has no precedents in history. According to forecasts, Russia's population of employable age will in the period 2010 to 2030 shrink by 18 million, or by 20%, and of the European Union – by 14%, which means more than 20 million.¹⁰
- High rates of population ageing. In EU-27, with population growth forecast at 4% in 2010-2030, the number of people aged 65 and above will increase by 1.4 times, and their share in the population will reach 23% as against 17% in the

⁸ Author's theses

⁹ В. Барановский. Евroatлантическое пространство: вызовы безопасности и возможности совместного ответа. /ИМЭМО РАН. EASI, М., 2010, с. 7.

¹⁰ For Russia, the estimate is carried out within the current range of working age (men – 16-59 years; women – 16-54 years). For the EU, men and women – 15-64 years of age.

current year. In Russia, the pension group of the population will increase by 1.2 times in 2010-2025, and its share in the total population will rise from 22% to 27%. While according to the medium version of a forecast produced by the Russian Federal Statistic Service, the country's population will fall by 5 million, the pension group will grow by 6 million persons. Accordingly, the demand for the working age population increases considerably. While in the Eu-27 in 2010, approximately 4 working persons had to provide the pension and other types of social benefits for 1 pensioner, their number in 2030 will be only 2.6 per pensioner. The ratio in Russia is still worse: 3 persons of working age per 2 pensioners in 2010, and only 2 in 2025.

- The growing role of immigration as a factor supporting the reproductive and labor potential of the region. The importance of the migration prop-up is vividly demonstrated by the U.S.A., which intends, relying on immigration, to carry on with high rates of population growth: the forecast is that the country's population will by 2030 increase by more than 40 million. The U.S.A. in this respect differs significantly from the EU and Russia.

The EU-27 has in the course of the recent decade received from 1.5 to 2 million immigrants annually. This, in spite of the fact that demographic concern over the natural loss of the employable population appeared only this year. Net immigration to Russia in recent years has stayed at around 250 thousand people a year. Coupled with this is some 2 million labor immigrants employed under official contracts.

The greatest *threats to security* of the European part of the Euro-region region are associated with the shrinkage of the labor potential. There have been no precedents in the developed world of economic growth taking place amid falling employment even with high levels of labor productivity. In an unfavorable economic situation, a certain fall in employment does happen sometimes, but it is insignificant (normally, within 1%), short, and gives no grounds to speak of a steady trend. Employment growth has up to now been the most precise indicator of successful economic development and a reliable indicator of emergence from recession. This has been confirmed by the latest crisis.

Consequently, the slackened growth of employment carries a direct threat of a slump in the economic growth, which, what with the forecast decrease of the labor potential, cannot be compensated by an increase in labor productivity.

The problem of demographic deficit is exceptionally explosive in the socio-political respect.

The European Union and Russia are facing a difficult dilemma: either cutting down on expenses for pensions by increasing the pension age, curtailing social programs, defense expenditures and other previously priority tasks, and holding down wage rises, which all combined, nevertheless, cannot prevent an economic slump due to a fall in employment; or else accepting as many immigrants as necessary to make up for demographic losses. It is clear that economic recession is a much worse alternative which can radicalize the political situation and provoke a social explosion.

If Europe and Russia cannot quickly and effectively resolve the problem of demographic shortage of labor force, this threatens them with a protracted economic slump, decline of their positions in the world arena, and for Russia, besides, this is a matter of shrinking populated space and a threat of loss of control over the territory of Siberia and the Far East (in the opinion of American analysts, the shrinkage of the

population of working age will become a serious test for the European social welfare model and a stumbling block for political consensus.¹¹

The migration scenario also carries serious challenges, especially considering the scale of the immigration required and the fact that the main donors may be countries with far-reaching ethno-cultural distinctions. According to forecasts, both the European Union and Russia will need on the average no less than 1 million immigrants each, at least up until 2030.

It should be noted that the birth rate stimulation program undertaken in Russia cannot produce any influence on the situation in the period in question, because the babies that will grow to emerge on the labor market at that time are already born.

Under the impact of immigration, the ethno-confessional composition of the population will be inevitably changing, which is fraught with an increasing danger of ethno-religious conflicts and political shifts in radical directions. The greatest threat is the so-called "Islamic challenge". In Western Europe, the Muslim population is expected nearly to double by 2025 (up to 25-30 million as against the 15-18 million at the present time)¹². According to some data, the number of Muslims in Europe is already in excess of 25 million¹³. The Muslim stratum in the Russian population will also be growing – as the estimates go, from 20 million¹⁴, or 14%, in 2005 to 19%¹⁵ (around 26 million) in 2030. Although it is migration that is going to play the main role in this process, a definite contribution will be also made by the Muslims' higher birth rate.

The social and political tension that already now accompanies the problem of Muslims' integration in the host communities may in the conditions of an inevitable increase of their numbers and share in the population become a serious destabilizing factor and a challenge for European politicians. The Muslim problem should not be discarded in Russia either. It is fueled by the still unsettled situation in the Northern Caucasus and a fast shift in the structure of labor migration flows in favor of Uzbeks and Tajiks.

Measures to restructure social programs following a demographic pressure threaten with an increase in migrantophobia, development of nationalism as a form of protest against a danger of Islamization, anti-migrant actions, and aggravation of the process of migrants' integration. This to the greatest extent will affect Muslims, with wary attitudes towards them already formed and strengthening.

A great danger is now presented by a possible further growth of illegal immigration that nourishes and stimulates the shadow economy. The development of mafia migrant networks serves as a cover for trafficking in drugs and humans. Illegal migration at the present time has acquired enormous dimensions in all parts of the European region. In the EU-27, expert assessments put it at 8 million people, the figure is still greater for the U.S.A., and in Russia it is 4-5 million. The size of illegal immigration, which predominantly consists of job seekers, is convincing evidence of the vast capacity of the labor market in the European region, on the one hand, but also of the governments' inability to cope with regulation of migration flows, on the other.

¹¹ Мир после кризиса: 2025 /Доклад Национального разведывательного совета США. М., 2009, с. 77.

¹² Мир после кризиса, с.64

³ Малащенко А. Выстраивая отношения с мусульманским миром /Московский Центр Карнеги. Рабочие материалы. N 1, 2010, с. 18.

⁴ Ibid, p. 16.

⁵ Мир после кризиса, с. 63

The problems of migration, such as necessity to prevent ethnic and religious conflicts, and to counter illegal migration, trafficking in humans, and formation of mafia migrant networks, can hardly be resolved within the framework of a single individual country. *The very nature of the challenges discussed here requires coordinated effort by all countries in the Euro-Atlantic space, their close cooperation in this direction. The more so, since the increasing effect that immigration produces on economic development and the social situation will require new approaches in migration policies, introduction of new, more mobile and flexible ways of management, development and reinforcement of informal institutions, and elaboration of more efficient practices, since the current regulating systems can hardly be described as altogether successful and meeting the new demands.*

A search for coordinated solutions and exchange of experience is possible, for example, within the framework of the regularly meeting international Migration Forum that covers all countries of the Euro-Atlantic space, or, in a smaller format, EU-27 and Russia that have an especially great similarity in their problems. The main donor countries could also, whenever necessary, be invited to participate in the Forum.

The similar demographic situation, the common problems that are going to arise, difficulties in searching adequate responses and solutions to the possible challenges – all create favorable prerequisites for cooperation within the framework of the European region. The experience of the U.S.A. as a country that managed to avoid a harsh demographic crisis and is integrating immigrants more successfully, is highly important in this cooperation.

Let us point out yet another important factor that governs the necessity to step up the dialogue and to look for coordinated effective measures within the framework of the European region.

All parts of the Euro-Atlantic space, the U.S.A., EU and Russia, have as their southern neighbors the countries with young population, which came to be termed as the "instability belt" (the Andes region in Latin America, Nigeria, Somalia, Afghanistan, Pakistan, Central Asia, etc.). The population of the age under 30 in these countries will in 2030 make 45-60%, or in some places, like Afghanistan, even more. The number of the countries in this bracket will increase. In the countries making the "instability belt", prerequisites and conditions will persist for socio-political upheavals, bitter political confrontations, and even collapse of statehood, something that the example of Kyrgyzstan demonstrates today. There is also a danger of greater activity of extremist youth movements, including radical religious trends. *Consequently, all countries of the Euro-Atlantic space are interested in interaction aimed to look for ways to produce a stabilizing effect on the situation in the potentially conflict generating countries, which implies measures to monitor public sentiment in these countries, especially in the young people's environment, to follow informal international chain linkages of extremist and terrorist organizations and leaders, and to work out methods of countering them. This type of activity can hardly be successful if pursued by just one country or even a region. The threat from the south emphasizes the necessity to create permanently active discussion platforms with participation of all the parties that are concerned about preventing demographic threats.*

Alleviation of the labor force shortage may be helped by the countries' fuller use of their own resources. The greatest opportunities are associated with the workers' freedom of movement, their mobility. The European Union moves fast in this direction within its frontiers. No smaller reserves would come into play with lifting the Schengen barriers

between the EU and Russia. Analytical work is already underway in this direction, and it shows that there are many complications that have to be overcome on the way of realization of the freedom of movement principle¹⁶. This is yet another argument in favor of maintaining a permanent dialogue.

The point is that this calls for prompt action, for the situation is going to be changing very fast.

¹⁶ See, for example, Миграции без границ. Эссе о свободном передвижении людей. /Под ред. Антуана Пеку и Поля де Гюштенера. Серия «Исследования в области социальных наук». Перевод на русский язык – А. Калинина. Редакторы русской версии - Ж. Зайончковская и Е. Тюрюканова. Перевод на русский язык подготовлен при поддержке Бюро ЮНЕСКО в Москве. М., «Адамант», 2009. - 291 с.

Alexander A. Auzan

President, Institute of the National Project "Social Contract"

Socio-Economic Factors of Euro-Atlantic Security¹⁷

As a lead to the discussion of socio-economic factors of Euro-Atlantic security we should first define the content of this notion. In 2007, while working on a socio-economic strategy for Russia the economists of the Sigma Group after a difficult discussion formulated criteria of national security. We arrived at the conclusion that in a narrow sense security as a hard nucleus should include immutability of the country's constitutional system, its territorial integrity and sovereignty. Apart from that, this should evidently also include the issues that are specific for each country, and are significant for it. Therefore, going over to the issue of Euro-Atlantic security, I should point out that it most probably has to do both with immutability of constitutional institutions and with supra-constitutional institutions, that is, the values that are important for this constitution to work, the values on which realization of the constitution depends. Owing to rather considerable progress achieved in recent decades in cross-cultural studies, we have improved the understanding of relationships between these constitutional and supra-constitutional institutions.

Studies of the Euro-Atlantic space in these respects conducted in accordance with the criteria, methodologies, etc. available in world science reveal a great deal of differences, yet there are many common points between its participants. In spite of the fact that Russian culture is regarded as collectivist (although the behavior is individualist, masculine, as, incidentally, south-European is, too), there are points of similarity. And these points on the whole are evidently explained by two opposite historical circumstances. In the first place, there is still a tradition common to the Euro-Atlantic space that is associated with Cheeko-Christian civilization, with common roots in both the values and aesthetics. And secondly, there is already a non-traditionalist trend for modernization.

I would like to recall how many discussions the notion of Europe and Europe's frontiers evoked, and how this notion was changing. About 5 years ago, I participated in a discussion of this kind in Germany. Hans-Hennig Schröder, now counselor to the Chancellor's administration, reminded then the German participants (who were debating whether Russia was or was not Europe) that back in the early 20th century in their own country the question was discussed whether Germany was or was not Europe. He said that historically speaking Europe was most probably only Britain, the Netherlands and, might be, cities of northern Italy. The rest of Europe was acquisitions. This is a result of development and shifts in a certain sequence of values.

I would in this connection think that the notion of Euro-Atlantic security requires, on the one hand, an approach implying that all countries in this space would like to have stability and immutability of the constitutional systems, borders, etc. On the other hand, these common points have to be taken into account, and a common view should be made possible based on a certain religious and cultural similarity, common secular modernizational approach, and so on.

¹⁷ Text of the presentation at the situation analysis

Turning again to socio-economic factors, let me make the point that this is a very broad sphere, and yet in practice these factors can be brought together in three main groups. *The first is the factors related to mistakes in economic policies and their effect on the issues of political destabilization, inter-state relations, and, it could be, security. The second is the factors associated with corruption. And the third – the factors associated with inequality.*

Regarding mistakes in economic policies. When they speak about these policies, or more precisely, about drawing up one or another piece of legislation or creating certain institutions, they usually mention mistakes of two types, inadvertent mistakes and those that are rooted in legislation. In this connection, I would like to respond to what was said here about wars for resources in present-day conditions. I agree that these wars no longer cover the expenditures on them. However, it is, in the first place, not clear whether this is obvious for the actors that are moving in this direction. And secondly, the expenses are not covered for the country, but there may be benefits for some social group or stratum. Exactly the same thing happens when it is a matter of mistakes of the first and second type. Mistakes of the first type are indeed associated with limited rationality, with the lack of understanding of how the policies should be mapped up, while mistakes of the second type are associated with the fact that certain provisions are deliberately set in the laws in order to bring dividends to one or another group in one or another society.

It is the mistakes of the first type that in my opinion carry the greatest threats to Euro-Atlantic security, because the countries that have to cope with the tasks of catching up in their development, of modernization in a great many cases attempt to project formal institutions that are rejected by reality and produce an unexpected effect. We can discern a wide range of problems that the countries in this bracket face: from the now well-known problems of Greece, to amassing problems of Bulgaria and Romania, and to Kyrgyzstan – with problems there associated not with the present anti-Bakiev revolution, but with the one before, anti-Akaev, when Kyrgyzstan with great willingness imported various institutions and that finally led to an explosion in the country. Russia's socio-economic development, too, is affected negatively by the quality of institutions that has been steadily deteriorating in the recent 10 years as contrast, for example, to the People's Republic of China.

It would seem to me that mistakes of the second type do not represent all that great threat. In a number of countries they are compensated by integration control. Let's say, in the countries of Eastern Europe they were in many cases eliminated following integration with the EU. Although there were trends of this kind, like attempts by oligarchic groups to generate their dividends, etc. That, for example, took place in Latvia, although it is mistakes of the first, not second type that are more characteristic of Latvia. Mistakes of the second type are a rather rare occasion in Euro-integrated countries. Euro-commissioners, Euro-directives and all the rest of it there have quite well blocked any development in this direction. Meanwhile, they have not managed to avoid mistakes of the first type, because indeed there are no universal recipes of how formal institution should be borrowed, transferred and used, considering the fertile soil for informal institutions, national specific features and the specific course of economic development.

Now over to corruption. This word covers such a great variety of phenomena that it is good for obscuring, rather than clarifying the situation. Therefore, from the point of

view of its effect on security, I would speak of four different types of corruption, ones that are usually more conspicuous. In the first place, there is the so-called lower level and upper level corruption and we shall see what it is all about. Secondly, let us see what it is all about the corruption aimed to extort dividends or to collect them from routine business activities.

Lower level corruption is found by far not in every country of the Euro-Atlantic region, unlike, incidentally, upper level. Upper level corruption is found in practically all countries to one degree or another, in one form or another. Lower level corruption is more typical of our, I would say, "Euro-Pacific wing". And here the threat from the viewpoint of Euro-Atlantic security is associated with the fact that it is through the environment affected by lower level corruption that such crimes as drug trafficking, support of terrorism, etc. spread much easier. As applied to upper level corruption, entirely different threats arise. I can refer, for example, to a concrete region of the Russian Federation, located in Siberia close to the People's Republic of China. Regional authorities in that place were corrupted by our domestic companies, which were then actually bought by Chinese companies operating with their government's support. As a result, this gave rise to qualitatively new threats. This, incidentally, is not at all visible on the surface. Even to the contrary – the Chinese abandoned the market, and physically their presence seems to be less felt. But at the same time, the Chinese have gained access to the local forestry enterprise and are about to reach some other, far more significant facilities. Therefore, their visible presence is less noticeable, but very serious practical violation of Russia's sovereignty in the region is getting underway. It is upper level corruption that makes these things possible, because if the powers of authority are offered for sale, then inevitably among the bidders appears someone who does not necessarily represent this particular community, country, union or state.

Now over to the impact of various types of corruption depending on whether the illicit dividends are exacted from routine business activities or they are extorted in a lump sum. Once again, the first type of corruption obtains in very many countries in the Euro-Atlantic space. And it generally is fraught with hindrances in trade by way of creating transaction overheads and putting up administrative barriers. And where the second type emerges, which is predominantly in some of the countries in Eastern Europe and Northern Asia, that is, again in our "Euro-Pacific wing", the threat of takeover of assets appears, making the conditions for direct foreign investments much worse. All of this carries the danger of confiscation of direct or portfolio foreign investments by way of this type of corruption blackmail.

Now, the last, third factor – inequality. If we look at official figures, the quantitative inequality index, the Gini coefficient, increases as we move from West to East. It is much lower in Europe. It would seem, therefore, that the inequality factor becomes really acute in our countries. A similar situation is with the Lorentz curve. Let me recall that in earlier times it was generally considered that if the Lorentz curve, which graphically demonstrates distribution of incomes in the country, lies horizontally, this indicates that no one works in this country, and if it rises vertically, a revolution breaks out in the country. However, the threats associated with a high Gini coefficient, let's say, in Russia, Kazakhstan, Azerbaijan and elsewhere, and in the U.S.A., too, for that matter, should not be exaggerated. There are at least two transforming factors that carry over this effect from income statistics into a possibility of real social action, social tensions, commotion, and political upheavals.

The first transformer is associated with differences in people's perception of inequality. In the countries with a high propensity for risk in behavior, people perceive more or less casually these vertical social ladders, as, for example in the United States. Unfortunately, there are no reliable measurements of the risk propensity, but there are measurements of nearby factors with the help of Hofstede's criteria of inclination to obviate or reject uncertainty. In the countries where people are prepared to put up with uncertainty they generally believe that they may play the game and may win, and therefore there is nothing terrible about the fact that there are wealthy and advanced around. But if the social lifts do not operate, this grows into a great danger.

The second transformer has to do with accumulation of social capital, a possibility of the very action against the powers that be, for a change of government, and so forth. The more dangerous in this respect are the countries with accumulation of bonding capital, that is, where there are groups with linkages among themselves. Let me say that, generally speaking, neither Russia, nor adjacent states fall within this category of countries. Accumulations of social capital are very low in Russia today. Therefore, even disgruntlement and tensions should not lead to upheavals of this kind. Of course, these accumulations are higher in Central Asia with its counties having a large traditional stratum. Therefore, the chances for revolutions are considerably higher there, irrespective of the level of the Gini coefficient. Incidentally, this level is higher in the PRC than in Taiwan, and in the Socialist Republic of Vietnam it is higher than in South Korea, but this does not lead to any revolutions. There is no automatic interdependence here.

If we attempt to generalize on what the threats to Euro-Atlantic security are associated with as applied to the socio-economic sphere, all of them can on the whole be brought into two groups of factors. These are inequality (including the factors like unemployment, poverty dimensions, etc.) and the quality of the institutional environment. It would seem to me that the most dangerous, "infectious" environment or factor is the low quality of institutions. Where the institutional environment is poor, both indirect threats emerge associated with terrorism, drug trafficking, etc., and appropriation occurs of some functions of economic sovereignty, and a probability exists of mistakes of the first and second type. Therefore, it would be sensible if the Euro-Atlantic community would opt for measures aimed to level out the institutional environment while improving its quality. In this connection, any integration groups in the Euro-Atlantic space that introduce in practice regulations administered not by a national government, but in a more complicated manner, thereby improve the quality of the environment. And here I mean not only Russia, for example, acceding to the WTO, but its Customs Union with Kazakhstan and Belorussia as well. In any case, this means departure from administrative functions by groups, or governments, or persons, which helps production development.

I would not be able to offer any other means. On the whole, it seems to me that the socio-economic sphere carries no direct threats to Euro-Atlantic security in a rigid understanding, in the sense of hard nucleus, that is, a threat of wars or revolutions in the near or mid-term perspective, which is due to the presence of a multitude of various kinds of transformers. For example, our studies have shown that developed countries prefer for some kinds of foreign investments the countries with individualist culture close to Anglo-Saxon, while in other cases, however, they on the contrary prefer an environment with collectivist culture. The investment flows are leveled out just by this cultural gradient. It would seem to me that we can hardly expect outbursts associated

with socio-economic processes, and therefore the cure here should be rather of therapeutic, not surgical character.

Alexey V. Kuznetsov

Dr. (economics), Head of Department, IMEMO RAN

Possibility and Means for Regional or Sub-Regional Economic Institutions in the Euro-Atlantic Region (the EU, Eurasian Economic Community, Customs Union) to Achieve Compatibility and Complementarity.¹⁸

In reviewing the possible ways to accomplish this task, we should consider the entirely different economic weight and the incomparable historical integration heritage. As economic integration with one unchallenged leader shows poor progress, so does interaction between various integration groups appear to be badly balanced with the presence of one giant which the European Union became in the Euro-Atlantic region in 1990s-2000s.

Until recently, the European Union – on the assumption that it is a self-sufficient integration group -- has aimed at absorbing new members, not at transforming its own system for the sake of strengthening cooperation with other regional integration groups. The most striking examples are the Visegrad Group that fully joined the EU, and the European Free Trade Association that began to break up in 1973, and by now has turned into the fragments integrated in the common European space directly (Norway, Iceland), or through a network of agreements (Switzerland).

If we brush aside the cultural and political considerations, the EU enlargements that occurred in the 2000s can be viewed as hasty, in the first place because of the existing contrasts in the economic setups of the member-states and their social development. Therefore, the European Union begins to revise its attitude to the neighboring regions (one might recall the idea of the Union for the Mediterranean involving the countries of the Southern Mediterranean, and the awkward attempts to develop Eastern Partnership). But the difficult way towards adjusting the principles of integration and its institutions, summed up by the adoption of the Lisbon Treaty, and the crisis in the euro zone do not dispose the EU to any serious moves in the post-Soviet space within the next few years.

The EU is mostly interested in Russia and the regional economic groups it has set up as the sources of raw-materials and sales markets, while in the future, it might change the attitude to migrants from the post-Soviet space. Easing the regulations for foreign investors to gain foothold on post-Soviet sales markets and move the production of commodities and services there with reciprocal moves to accommodate Russian interests was seen in the EU before the crisis as “free trade zone plus”, which should have preceded Russia and other countries’ ascension to the World Trade Organization. Since the process was suspended, the energy dialogue remains the principal theme for EU officials, and it is very difficult to reverse this situation. Suffice it to say that the energy theme has oddly spun off the economic bloc, although Europe customarily treats economic issues expansively, attaching to them environmental issues, especially where it concerns security.

There has been a gradual shift in accents in the Russia-EU energy dialogue. Whereas the EU gave priority to technological aspects (the reliability of energy systems was

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understood as the environmental safety of pipelines and the availability of alternative gas transportation routes in case of accidents) and assistance to Russia in modernizing its electric power engineering in 2002, the issues under discussion became more complex and political by the mid-2000s (provision of transit, mutual access of investors to the assets to produce and sale hydrocarbons, including the drawing of relevant legislative groundwork). As many guidelines had stalled by the end of the decade, the themes that had used to be of secondary significance came to the forefront while remaining relevant for Russia (for example, the merging of the CIS and EU energy systems, cooperation in nuclear power engineering – although the possibility of Russia's supply of electricity to EU was a subject of emotional discussions back in 2002, as was the trade in fissile materials). Among other issues related to energy security are the permanently discussed cuts in the emission of greenhouse gases and the general increase in the energy effectiveness of the economy, as well as the safety of maritime oil transportation (which was mostly discussed in 2003-2004). It seems it is the energy dialogue that the EU would be ready to convert into the format of relations with all the post-Soviet space, the extracting countries of Central Asia and Azerbaijan, and the transit countries (in the first place Ukraine and Belarus). It is possible that the EU would prefer to begin the general dialogue only with Kazakhstan, Russia and Belarus.

The EU states are certainly ready to conduct dialogue with individual post-Soviet states over various issues: not within the scope of interaction between the integration groups, but in the all-European space (while keeping in mind the development of the European Union). For example, the UN Economic Commission for Europe has been making good headway in harmonizing technological standards.

The Organization for Security and Cooperation in Europe, which made the security problem one of its three key dimensions, can contribute too, by way of responding to global changes in international relations. The economic guideline in the OSCE activity implies creating and maintaining a favorable climate for entrepreneurship in countries (foremost by means of developing the necessary institutions), cooperation in fighting money laundering and the funding of terrorism, supporting the development of transport infrastructure and its security, cooperation in migration policy, counter-measures against the intensifying socio-economic inequality and growing unemployment. Environmental protection envisions that a participant state works on maintaining an ecological balance, reducing harmful atmospheric, soil and water emissions, cooperates in managing water resources, burying radioactive waste and maintaining energy dialogue, and jointly eliminates the aftermath of environmental disasters.

It should be emphasized that the underdevelopment of integration associations in the post-Soviet space remains the main obstacle. Meanwhile, it would be unproductive to strengthen their firmness using the EU's past experience and present-day rules (experts have repeatedly pointed out at the crucial task of taking into account the specifics of the member-states in the Eurasian Economic Community and the Customs Union). In the long run, Russia must decide for itself which it wants – quickly integration in the EU economic space, gradual integration in this space together with neighboring countries or developing more balanced economic ties with the outside world.

Boris Ye.Frumkin

Head of Department, Institute of Economics RAN

Agricultural Security of the Euro-Atlantic Region¹⁹

1. The Global Financial and Food Crises

Showings of a crisis situations on the world market of foodstuffs emerged back in 2007, and the global financial and economic crisis aggravated them, causing a slide of payable demand in 2008 and 2009 and a noticeable shrinkage of liquidity and loans, which triggered a compressing of the domestic, and especially international, markets of foodstuffs. Agriculture and the food industries were cut off from the needed working assets, while support in the form of private and state finance and investment was frustrated. This led to an upswing of agrarian protectionism and faulty operations on mercantile exchanges and stock markets.

At this stage, the domestic and international prices remain highly volatile. They are still too high for many consumers and too low for many producers. Risks verging on real threats and partially growing over into overt crises are mounting in the sphere of resource endowment. The situation stabilized to some degree in 2010, and yet *the 21st century will not be an age of inexpensive foods. Nor will the farming sector be able to continue developing along the old resource-intensive patterns.*

The global financial and economic crisis has exposed the depth of the problem of global food supply security and *this problem embraces both direct threats to and risks for food security and tentative ones.*

The direct risks and threats relate to the physical and economic accessibility of foodstuffs, as well as the quality and safety of foods for the consumer.

The tentative threats and risks pertain to the global aspects of the shortage of natural resources for agriculture, the climate change, shifts in the agricultural technological models and the structure of nutrition, as well as the social and political aftermaths of these processes.

All of this puts forward new requirements to the countries of the Euro-Atlantic region as the main actors in the global production and sales of foodstuffs. Their responsibility for the transition to a new global food order is growing steeply, and the maintenance of security in the new situation demands stronger interaction and a search for new partners and allies to stand up to the direct and tentative threats.

2. Direct Challenges

The first group of challenges has a bearing on food supply security as such. The UN Food and Agriculture Organization suggests: “Food security [is] a situation that exists

¹⁹ Author’s thesis

when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.” This implies a steady and unabated provision of the required quantities of accessible foodstuffs having an appropriate and secure quality. This ideal model is implemented in the developed nations, for instance, the member-states of the Organization for Economic Cooperation and Development (OECD) including the EU and the U.S.

Thus the problem of food supply security is in essence tantamount to the problem of maintenance of national agro-industrial sectors for the potential Euro-Atlantic Partnership so as to ensure stable domestic consumption, efficient participation of global balance on international foodstuff markets, and the granting of aid for prevention of famine in other parts of the globe.

Russia has recently moved closer to the club of the countries self-sufficient for food. It is implementing governmental programs of support for agriculture that made possible a 21% rise of gross agricultural production in the period of 2006 through 2009 (3.5% from January through May 2010), a 23% rise of grain output and a 29% hike of meat production. For the time being, Russia lags behind others as regards the most rationalized national norms for consumption of popular foodstuffs, but the authorities plan attaining these norms by 2020 throughout the country on the whole with the aid of the Doctrine of Food Supply Security of the Russian Federation. Under its provisions, the output of agricultural produce inside Russia will be expected to be sufficient for maintaining steady food security and covering 95% demand for grain and potatoes, 90% for milk and dairy products, 85% for meat and meat products, and 80% for vegetable oils, fish and other fishery products.

Even though global agriculture and food production have an overall capability to provide food for the Earth’s entire population at present, the acuteness of the food problem keeps growing. The number of the chronically starved people has been increasing since the mid-1990’s. It rose to above a billion in 2009 and virtually totaled one-sixth of the planet’s population. This threat is looming mostly over the developing nations, whose GDP loses 3% of growth annually due to the deteriorating bodily conditions of the undernourished workforce. In 2008, the world had the reserves of foodstuffs sufficient for sustaining the global demand over a period of 40 days only (versus 57 days in 2007), and even this resource was distributed extremely patchily – the fact prone with social, economic and political instability. Leaps of prices for foodstuffs sparked off revolts of the starving in more than 40 developing countries then.

For the first time in this century, the foodstuff problems have had impact on the developed nations, including the EU and the U.S. as Euro-Atlantic leaders. The crisis in the EU dairy farming sector has been lingering or almost two years and U.S. farmers, too, have to tackle sales problems. For the first time ever, revenues of a sizable part of the West’s population have become insufficient for normal feeding. More than 40 million people (or one person in eleven) needed government food aid in the EU at the beginning of 2010. More than 39 million people in the U.S. (one person in eight adults and one of four adolescents) were recipients of food stamps. Sociological polls in Russia suggest that about 20% respondents support the idea of introducing some kind of food stamps for the people in the low-income brackets of society.

A relatively slow global economic rehabilitation may have a bad impact on agricultural production across the world and impede its increase towards a necessary level. FAO estimates say in the meantime it should grow 70% by 2050 so as to enable normal food

supplies to the world's population, which is expected to go up 40% (to about 9 billion people) by that time.

In reality, though, the entire growth of global population will fall on the developing nations and that is why they will have to double their farming sector's output. In addition, an increasing reorientation of the people (especially in China and India) to the Western style of feeding may push up the global demand for the most valuable resource-intensive products – meat, for instance – by 85% (versus 50% for other types of food on the whole). And a full assimilation of new feeding patterns by these countries might require a combined agro-industrial resource of three planets like the Earth.

FAO's assessment puts the investments in agriculture and the processing industry that are essential for ensuring this growth at \$ 83 billion, even without the investment in the infrastructure, irrigation, and education that is closely linked to investing in the two former sectors. The majority of developing countries with the exception of China, Brazil, India, the South-African Republic, and some of the Asean states do not have such resources and they will need external financial and technological assistance. The upcoming decade is crucial from the angle of view of the dynamic start, but even a rather optimistic Agricultural Outlook 2010-2019 authored by the OECD and FAO suggests that the global agricultural growth will be sizably smaller over the said period than it was from 1996 through 2006. At the same time, the averaged real prices for major products will be rising – by 15% to 40% for wheat and fodder grain, by 40% for vegetable oil, and by 16% to 45% for milk and dairy products. The nominal prices for beef, pork and poultry will likely go up 21%, 17% and 32% respectively.

These tendencies are linked to changes in the dynamics and structure of world agricultural output and trade. The position of traditional major actors – the OECD member-states, inclusive of the EU and the U.S. – is weakening relatively along with the strengthening of new actors, of which the BRIC countries come first. The OECD/FAO outlook for 2019 says global agricultural output may show a 22% growth versus the figures of 2007 through 2009. On the face of it, growth within the OECD area as such will likely total 10% (or 10% to 15% in the U.S. and Canada and less than 4% in the EU), while the developing nations may report 29% to 33%. A total of 27% will likely be shown by BRIC countries (26% by China and Russia and 21% by India).

As for the present period, though, the EU, the U.S. and Canada accounted for over 41% of global farm product exports even in the crisis-tainted year 2009. Russia's share was 2%. The respective figures for global agricultural imports were 37% and 5%. The situation in Russia that has become the world's number three largest importer of grain has started influencing the international markets. A 12% shortfall in grain harvests expected in this country in 2010 in the wake of a drought has already ignited a 12% increase of prices on the leading international trading floor, the Chicago Board of Trade.

The OECD countries will continue dominating the world exports of wheat and fodder grain (52% to 59%), dairy products (63% to 80%) and pork (80%) through to 2019. At the same time, the developing countries will keep controlling the exports of seeds of oil-bearing crops (56%), beef (57%), poultry (63%), sugar (90%), and rice (91%).

The Euro-Atlantic region countries and the BRIC are thus acquiring responsibility for their own food security (since 90% of agricultural products from across the world is sold on local or regional markets there) as much as for world food security, although only 10% of these products reach international markets.

Already in 2007, the U.S., the EU and the BRIC accounted for 66% in the global production of grain and milk, 60% of beef, 63% of poultry, and 81% of pork. However, the models of engagement in resolving the world food supplies problem differ considerably from one country to another. The U.S., the EU and Canada orient themselves at a simultaneous development of production for the domestic and international markets. Russia, which has been building up import-substituting spheres of production (it plans reducing the share of imports in the consumption of basic foodstuffs to 20% to 15%), adjoins this group. Brazil, too, is stepping up foodstuff exports (up 94% to \$ 10 billion in the years 2006 through 2009). As for China and India, they are preoccupied with the concern that meeting their huge internal demand for food.

This lays down the prerequisites for coordinated actions by the trans-Atlantic partners and Russia (especially along with coordination of efforts with Kazakhstan and Ukraine) in the ensuring of global food supply security. The U.S., the EU and Russia provided for almost 33% of grain in the world in 2007. Other indicators were 35 or so percent of pork and poultry, more than 36% of beef and over 40% of milk. If one adds Canada, Kazakhstan and Ukraine to this, the respective figures would be almost 37%, more than 36%, about 40%, and 44%.

The forecasted outstripping growth rates in the Russian, Ukrainian (29%) and Kazakhstani agricultural sector from 2010 through 2019 offers new promises for the setting up of a 'Broad Euro-Atlantic Partnership' (the EU, the U.S., Canada plus Russia, Kazakhstan and Ukraine) in the resolution of problems of their 'megaloregional' and global food supply security.

'Broad partnership' of this kind might give focus to:

- Joint forecasting of production, consumption and export/import flows of the major types of foodstuffs to the global market and leading regional ones;
- Proceeding from this, the identification of coordinated measures for keeping up balance in production and trade, up to coordination of preferable weighed-out prices for the international market. The possible subject commodities are grain, some types of vegetable oils, meat, and dairy products (Thailand, Myanmar, Laos, Vietnam, and Cambodia hope to set up an Organization of Rice Exporting Countries for eliminating the problems of rice supplies to the world market);
- Coordinated participation in the establishing and managing of insured funds of grains, vegetable oils, dairy products, sugar, and mineral fertilizers for granting emergency assistance to the countries that need it);
- Provision of recommendations on mutually beneficial manufacturing and commercial specialization, including investment. (For instance, production and exports of wheat, sunflower seeds and oil, rapeseeds and oil, and beef from Russia, Ukraine and Kazakhstan along with concentrating the EU and U.S. efforts on the production of corn, barley, soy seeds and oil (including the ones for the production of bioethanol and bio-diesel, in which the EU and the U.S. will likely have a combined share of 50% and 75% respectively in 2019);
- Provision of greater transparency and taking account of global food security requirements as regards the operations of multinational companies that act on the territories of cooperating countries and influence the national and international markets considerably;

- Coordination of regulations for major agrarian resource exchanges in the cooperating countries for the purpose of preventing the manipulations, which make food prices more volatile and affect the producers and consumers likewise.

3. Interlinked Challenges

The second group of challenges concerns the general conditions for development of the world foodstuff economy, which pose additional risks and threats interlinked with the problem of global food security and the Broad Euro-Atlantic Partnership's involvement in its solution.

Competition for land and water is moving to the forefront of problems related to future global food security. The resources of soils fitting the purposes of agriculture are close to depletion. Besides, 40% of soils in the traditional agrarian regions have degraded and the world's total farmland utilizable for the production of food may contract by 10% to 20% in the years up to 2050. Agriculture and non-agricultural branches of the economy inside countries are already crossing swords over these lands, as do the food-oriented and biofuel-oriented branches within agriculture. The contention between countries and peoples over these lands is mounting, too, partly in the wake of purchases or long-term renting of overseas farmlands by China, South Korea and 'landless' but opulent states of the Persian Gulf and the launching of foodstuffs production there for the purpose of guaranteed supplies to their domestic markets in detriment of the local ones.

The reserves of freshwater, 70% of which have already being used by the farming sector, are limited as well. By 2050, agriculture will have to compete for this water with other branches of the economy and, above all, with the highly expansive global population, almost a half of which (or 4 billion) will live amid chronic water shortages by then. The reserves of farming-worthy soils have remained but in a handful of countries – Brazil, Russia, Kazakhstan and, partly, Ukraine and Canada. Resources of water exist in Russia, Brazil and Canada only.

The Euro-Atlantic Partnership might, on the strategic plane, facilitate their utilization for economic purposes without damaging the ecology or impairing the climate.

In the tactical sense, it might get engaged in the coming years in the efforts to untangle local and regional conflicts (including military ones) for re-division of soil and water resources in the zones of its traditional responsibility (Africa and the Middle East for the EU and the U.S., Latin America for the U.S., and Central Asia for Russia). Coordination of steps towards preventing and/or eliminating such conflicts might become part and parcel of the Broad Euro-Atlantic Partnership.

Climate change worsens the aforesaid problems. On the one hand, it already leads up to the melting of mountainous glaciers and a sharp shrinkage of river flows in the major agricultural regions (like Tigris/Euphrates and the Jordan in the Middle East, the Ganges in India, the Amu-Darya and Syr-Darya in Central Asia, the Yangtze in China, the Colorado and the Mississippi in the U.S.). As for the long-term, climate changes may bring about the flooding of coastal areas with the intensively developed farming in Southeast Asia, India, China, Latin America, as well as along some parts of Europe and Africa's Mediterranean coast. The contentions for soil and water will gain more acuteness then and their political aftermath has already been mentioned.

The resultant contraction of arable lands may send up the numbers of people suffering from malnutrition to 170 million people in that case and force the rural population to migrate to cities and other regions. This, in turn, may abruptly increase the army of pauperized urban dwellers in the developing countries. In the meantime, this stratum is a spawning ground for organized crime, extremism and terrorism, which may be targeted at the countries making up the Euro-Atlantic Partnership. It is also true, though, that agriculture deteriorates the climatic situation itself, as it produces 14% of greenhouse emissions. And if one considers the felling of forests for obtaining new farmlands, the latter figure goes up to 32%.

The way out of this impasse could be offered by a changeover to third-generation agricultural technologies, friendly towards land, water and energy saving and based on a safe utilization of genetically modified organisms. Development of such models, their adaptation towards the situation in the developing countries and assistance to their introduction as part of national programs is a crucial field for activity of the Broad Euro-Atlantic Partnership.

Support for small and medium-sized farms, 1.5 billion of which still make up the foundation of agriculture in the developing nations, comes forth as an important problem. Provided they get appropriate financial and organizational assistance (cooperation, mini-loans, adapted technologies and machinery), they can ensure a steady growth of agricultural output and exports (like in China, Vietnam and some states of India). An absence of the needed assistance and the staking on large agricultural companies and holdings may plunge small and medium-size farms into devastation and force the farmers to turn to the planting of non-food crops (including narcotic plants), as well as kick off an amassed outflow of people to the cities and illegal emigration.

These risks have already taken material contours. The number of deaths that the cultivation of heroin-containing poppy in Afghanistan brings up annually in Russia and the U.S. exceeds the overall loss of lives by Soviet troops in Afghanistan in the 1980's and by U.S. armed units since the start of armed operations there. A similar situation has taken shape in Colombia and some other Latin American countries, where drugs are supplied to the U.S. from. The bankrupt and starving peasants constitute the greater part of illegal migrants fleeing North Africa for France, Mexico, South American states and Southeast Asia for the U.S., or Central Asia for Russia. Time is ripe for coordinating and jointly effectuating a policy that will counteract the production and trafficking of drugs and illegal migration.

In addition, the U.S. and the EU might assist a transition of the agricultural sector in Russia, Kazakhstan and Ukraine to the third-generation agricultural model as an element of comprehensive modernization of their economies.

4. International Institutionalization of the New Global Food Supply Order

On the whole, the EU and the U.S. recognize the pressing need for cooperation on food supply security problems, although the positions of trans-Atlantic partners reveal some differences. The EU, for instance, believes it would be rational to cooperate in the format of the already existing major institutes – FAO in the first place – after they undergo a reform. The U.S. is more inclined to create new institutes with a greater

account for national interests. Russia can interact with the trans-Atlantic partners in both formats proceeding from its own national interests.

The Broad Euro-Atlantic Partnership might take an active part in the improvement of existing institutes that supervise the maintenance of global food security and in the formation of new ones. This implies first and foremost to practical steps on the L'Aquila Food Security Initiative adopted at the G8/G20 summits in Italy in July 2009. The latter envisions investing \$ 20 billion in the solution of global food security problems. Close cooperation is also possible in the process of setting up the Global Partnership for Agriculture, Food Security and Nutrition (GRAFSN), including a reform of FAO's Committee for World Food Security. The EU, the U.S. and Russia are tightly involved in these processes.

Participation in separate programs of the partners might become a promising guideline for the Broad Euro-Atlantic Partnership. Russia might join:

- Three programs of the EU for assisting the development of agriculture in the developing countries (with the total financing of 1.8 billion euros) and especially in the new Food Facility program spanning the years 2009 to 2011 (total financing of 1 billion euros). One of its beneficiaries, Tajikistan, has received almost 8 million euros for support to the farming sector;
- The Food for Future Program launched by the U.S. Administration in May 2010 and aiming to improve agricultural systems in twenty countries as a minimum. The program presupposes involvement of the so-called strategic partners (for instance, Brazil, India, Nigeria, and the South-African Republic) who might become regional anchors in terms of food security. Russia and Kazakhstan might take on the roles of the U.S. strategic partners in Central Asia in this case.

Russia's participation in the Global Agriculture and Food Security Program (GAFS), which the U.S. Administration inaugurated in April 2010, seems to be more problematic but possible in the future. The GAFS represents a trust fund managed by the World Bank. Its objective is to improve food security and revenues of impoverished countries through medium-term and long-term financing of agricultural development. The GAFS is expected to stimulate productivity of the farming sector, establishment of relations between the farmers and markets, technological assistance, and energizing of investment throughout the entire food production chain. Donations come from the countries like the U.S., Canada, South Korea, and Spain and from non-profit organizations including the Bill & Melinda Gates Foundation.

Other spheres for cooperation exist, too. One of them is Russia's engagement in separate projects as part of the Road Map for Cooperation in Food Security – 2010-2011. It is being designed in the format of the EU-U.S. Transatlantic Development Dialogue. The Road Map embraces four areas – the specification of the G8 L'Aquila summit and the November 2009 Rome Declaration, coordination of efforts in Africa, expanded cooperation in other regions, and integration of the problems related to nutrition and climate change. Also, Russia could participate in the discussion of food supply security problems at the national, regional and world levels within the framework of conferences involving EU and U.S. officials, like the Transatlantic Approaches to Global Food Security that was held in Brussels in May 2010.

List of Participant in the Situation Analysis Workshop

‘PROBLEMS OF ECONOMIC SECURITY IN THE EURO-ATLANTIC REGION’

MEMO RAN, June 29, 2010

1. Sergei M. Alexeyev, chairman of the committee for natural resource utilization and ecology at Russia’s Chamber of Commerce and Industries
2. Alexei G. Arbatov, Corresponding Member of the Russian Academy of Sciences, director of center, MEMO RAN
3. Alexander A. Auzan, President of the Institute “Social Contract-National Project”
4. Sergei A. Afontsev, head of department, MEMO RAN
5. Vladimir G. Baranovsky, Corresponding Member of the Russian Academy of Sciences, deputy director, MEMO RAN
6. Oleg A. Buchnev, deputy director, Institute for Scientific Research and Information at the Russian Academy of State Service
7. Andrei V. Gaidamaka, chief of the Division for Investment Analysis and Investor Relationship at the Main Department for Strategic Development and Investment Analysis, LUKOIL
8. Viktor A. Grushko, Deputy Minister of Foreign Affairs of the Russian Federation
9. Sergei M. Guriyev, Doctor of Economics, professor, President of the Russian School of Economics
10. Viktor I. Danilov-Danilyan, Corresponding Member of the Russian Academy of Sciences, director, Institute for Water Utilization Problems RAN
11. Alexander A. Dynkin, Academician, Director, MEMO RAN, member of the Euro-Atlantic Security Initiative (EASI) commission,
12. Andrei V. Zagorsky, professor of the MGIMO Diplomatic University reporting to Russia’s Ministry of Foreign Affairs
13. Zhanna A. Zaionchkovskaya, chief of the Laboratory for Analysis and Forecasting of Migration at the Institute for Economic Forecasting RAN, President of the institute’s Center for Forced Economic Migration in the CIS, member of the Federal Migration Service collegium
14. Igor S. Ivanov, cochairman of the Euro-Atlantic Security Initiative (EASI) commission, professor of the MGIMO Diplomatic
15. Irina Ya. Kobrinskaya, leading research fellow, MEMO RAN, coordinator of the Russian section of the Euro-Atlantic Security Initiative (EASI) commission
16. Mikhail Ye. Kokeyev, Minister Extraordinary and Plenipotentiary of Grade I
17. Vladimir V. Korabelnikov, Army General, Ret.
18. Alexei V. Kuznetsov, professor, head of department, MEMO RAN
19. Boris N. Porfiryev, professor, chief of a laboratory at the Economic Forecasting Institute RAN
20. Vyacheslav I. Trubnikov, Ambassador Extraordinary and Plenipotentiary, member of the Euro-Atlantic Security Initiative (EASI) commission, member of Directorate, MEMO RAN
21. Igor Yu. Yurgens, Managing Board President at the Institute for Contemporary Development
22. Ksenia V. Yudayeva, chief of the Center for Macroeconomic Research of Russia’s Savings Bank (Sberbank)
23. Boris Ye. Frumkin, chief of the section, Institute of Economics RAN

On Euro-Atlantic Security Initiative

The EASI project, launched by the Carnegie Endowment for International Peace, is implemented by the group of prominent politicians and experts from Russia, the USA and Europe with the goal to elaborate proposals on the new Euro-Atlantic security structure.

The EASI Commission co-chairmen are: former Senator Sam Nunn for the USA, former German Deputy Foreign Minister Wolfgang Ischinger for Europe, and former Russian Foreign Minister Igor Ivanov for Russia. IMEMO is the key partner of the project in Russia. All participants in the project see the solution of the problems not through the prism of Russian-Western relations, but in the context of common threats to security. Such an approach effectively promotes the Russian vision of all-European security. The President of the Russian Federation and the Ministry of Foreign Affairs recognized as expedient the EASI project and Russia's active participation in it.