

## **Russia on the eve of the financial crisis: the risks of economic growth slowdown against the backdrop of continuing institutional stagnation<sup>1</sup>**

The typical feature of the present-day situation in Russia with regard to institutional development is the existence of a significant discrepancy between two groups of indices. While the changes in the values of the majority of indices that describe the quality of this country's business environment remain rather negative, the dynamics of those reflecting the levels of its investment and credit risks are displaying a stable positive trend. The second group of indices – including, for example, the investment ratings by Standard and Poor's and the OECD index of country risks – have been steadily improving in the course of several past years, thus demonstrating the overall improvement of Russia's macroeconomic situation (budget stability, decreasing government debt, growth of the population's incomes, etc.). The improvement of the credit risk indices in the period after 2004 became an important factor that was contributing to the growth of both the external (mostly short-term) borrowings attracted by Russian companies and the volumes of their investments.

However, as shown by foreign experience, if Russia wants to ensure a stable growth of direct foreign investments and the entry of new foreign investors onto its market (outside of the spheres of extraction of mineral raw materials and manufacture of consumer commodities) it is not enough to lower the credit risks alone. It is also necessary to implement some deep institutional changes that will result in an improvement of more general indices describing the institutional environment at large. Therefore, in the countries that are attractive in terms of foreign investments, the improvement of the indices belonging to these two groups occurs, as a rule, simultaneously. So, the growth of Russia's credit and investment ratings in the period preceding the crisis must not be interpreted as her successful gaining of a firm competitive status on the world investment markets. Changes in these rating have largely been masking the fact that there still exist some serious problems associated with the functioning of Russia's basic institutions, as well as risks for attracting new investments and long-term growth.

The differences in the dynamics of indices describing country risks and institution quality can also be interpreted as being indicative of the fact that the overall macroeconomic attractiveness of the Russian economy (in terms of the achieved income level and macroeconomic management) is estimated by international observers as being markedly higher than the quality of state services aimed at ensuring business success and lowering the risks involved in direct investing in the real sector.

One may also speak of the increasing divergence in the relative speed of the processes taking place in the private and public sectors. The experience of the past decade has demonstrated that, in spite of some currently unfavorable institutional conditions, Russian businesses possess a sufficiently high potential for carrying out their own modernization (performance level upgrading, entry on new markets, production intensification and diversification, improvement of their management systems, switchover to more transparent property structure, etc.). As for the state administration system, it has turned out to be highly inert as far as innovation and improvements were concerned. The reforms designed to upgrade efficiency in the spheres supervised by the State (the judicial system, law enforcement, economic

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<sup>1</sup> The initial version of this article was published in Lev Freinkman, Vladimir Dashkeyev. *Rossia v 2007 godu: riski zamedleniya ekonomicheskogo rosta na fone sokhranaiushcheisia institutsional'noi stagnatsii*. [Russia in 2007: the risks of slow-down of economic growth against the backdrop of persisting institutional stagnation]. *Voprosy ekonomiki* [Issues of Economics], 2008, № 4: 75–93. The authors should like to express their gratitude to Michael Alexeev, Victor Starodubrovsky and Kirill Rogov for their valuable comments and help in the preparation of the article.

regulation, rendering of public services, etc.) are, at best, stagnating. In a situation when all the indices of the national economy's credit potential were growing (primarily due to the favorable dynamics on the international raw materials markets) trust in Russian private businesses was increasing much more rapidly than trust in government institutions. This discrepancy in the dynamics of these two indices, in our opinion, represents an important source of contradictions and is fraught with instability in the long run.

In this article we analyze the quality of Russia's institutional environment on the basis of available data on changes of some relevant international institutional indices. The main emphasis is placed on the discussion of institutional restrictions to stable economic growth in a long-term perspective. On the basis of cross-country comparisons it is shown that the substantial gap that had emerged by early 2007 between the dynamics of institutional development indices and the rate of economic growth was, by international standards, very significant and by no means typical of countries with stable rates of development. Within the framework of the suggested approach to analysis of institutional growth factors, two important economic policy issues are discussed: the potential limits to growth of the Russian economy in conditions of conservation of the institutional environment at its existing level, its stability and, consequently, the scale of the institutional changes needed for eliminating the accumulated lag in institutional development and for maintaining at a high level the rate of long-term growth. The conclusion offers some general considerations concerning the existing level and future prospects of institutional development in Russia.

### **The specific features and risks for economic growth in present-day Russia**

The priority long-term development goal of the Russian Federation is declared to be the improvement of the population's living standards and the achievement of GDP per capita amounting to 20,000 USD by purchasing power parity (PPP) – that is, approximately the present levels of Portugal and Greece. According to official statistics, Russia's economy in the period since the revival of economic growth in 1999 and until 2007 fully recovered with regard to its pre-crisis level (1997), and by some of its indices exceeded the 1991 level. However, it is the quality of economic growth that gives some ground for concerns.

On the one hand, if the dynamics of growth that began in 1999 may remain unchanged, the set goal of a GDP of 20,000 USD per capita population can be achieved already in 9 years – by 2017. On the other, the existing opportunities for the Russian national economy to maintain a high rate of growth in the long run are rather limited. Firstly, the reserves offered by rehabilitative growth – when growth rate can be accelerated primarily through more efficient use of the existing production potential and workforce with only limited new investments – have already been exhausted<sup>2</sup>. Besides, by the mid-2000s, the positive effects on the competitiveness of the real sector produced by the underestimated exchange rate of the ruble after its depreciation in 1998 had significantly declined<sup>3</sup>. In the short- and long-term perspective alike, economic growth in Russia will require a much more substantial volume of investment, while at the same time being hindered to a greater degree by various institutional, structural and demographic constraints.

In particular, some considerable risks for stable growth are associated with the lack of balance in the existing economic structure. The share of the raw materials sector in the Russian economy still remains too high. In the period from 2002 through 2006, the contribution of the extracting industries to the Russian Federation's GDP increased from 6 % to 9.5 %, whereas the share of the processing industries during the same period was fluctuating around 15.6 % of GDP.

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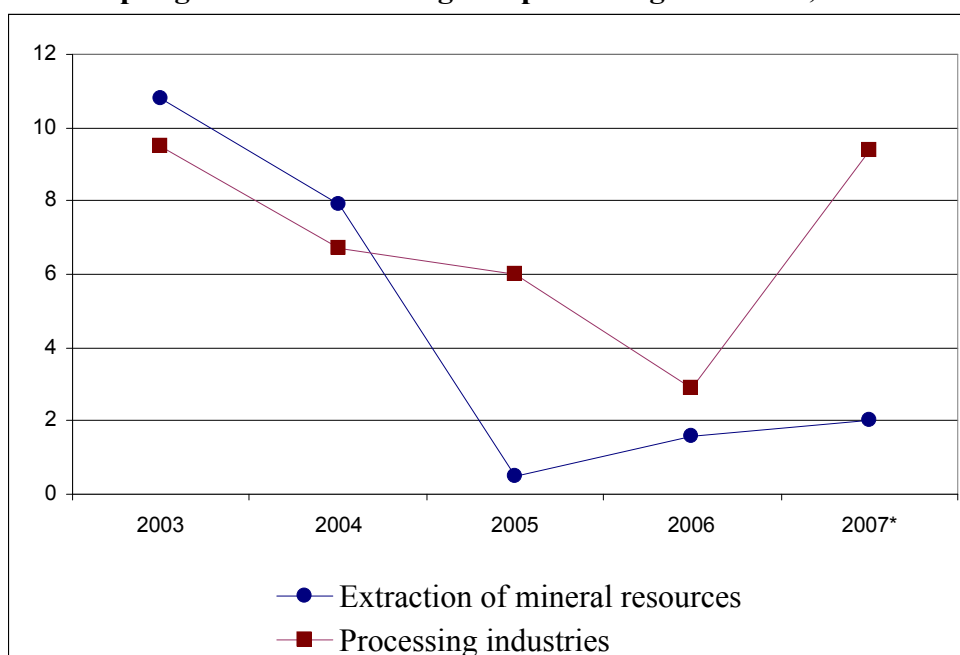
<sup>2</sup> A period characterized by increased use of such factors of production as fixed assets and labor force. For further details, see Gaidar Ye. T. *Dolgoe vremia. Rossia v mire. [Lasting Time: Russia in the World]*. M.: Delo, 2005.

<sup>3</sup> See, for example, Russian Economic Report. December 2006. No 13. World Bank, 2006 ([http://ns.worldbank.org.ru/files/ter/RER\\_13\\_rus.pdf](http://ns.worldbank.org.ru/files/ter/RER_13_rus.pdf)), OECD Economic Surveys: Russian Federation 2006. OECD, 2006.

Although in 2005 – 2007 the rate of growth in the processing industries was higher than that in the extracting ones (*Fig 1*), it is still too early to speak of the emergence of any more or less stable trend involving significant structural shifts – it must pass the test of time<sup>4</sup>.

*Figure 1*

**The rate of output growth in extracting and processing industries, 2003 – 2007, as %**



Note \* – data for 11 months.

Source: Rosstat.

The share of processing industry products (the so-called ‘non-traditional for Russia’ exports) in the country’s total exports has declined in recent years to 6.8 % (*Table 1*). As a result, the risks for the real sector associated with the drop of prices for Russia’s traditional exports are high, thus being transposed onto the federal budget where 40 % of revenue is generated by proceeds from the mineral resources sectors.

*Table 1*

**RF export of the processing industry’s products, 2000 - 2006**

	2000	2001	2002	2003	2004	2005	2006
Export of commodities and services, billion USD	105	102	107	136	183	244	304
Value of exports of processing industry products, billion USD	11.5	11.4	11.3	13.2	14.8	15.4	19.6
as % of total exports value	10.9	11.2	10.5	9.7	8.1	6.7	6.8
Textiles, textile products and footwear, billion USD	0.8	0.6	0.7	0.7	0.7	0.7	0.6
Machines, equipment and means of transportation, billion USD	9.1	9.7	9.2	10.8	12.3	12.4	16.0
Other commodities, billion USD	1.6	1.1	1.4	1.7	1.8	2.4	3.0

Source: estimates based on the data provided by the Federal Customs Service of Russia.

This strong orientation of Russia’s economy towards raw materials prevents the achievement of the set goals of economic development for the following reasons. Firstly, raw materials, as a commodity, are typically prone to substantial fluctuations of prices – much higher

<sup>4</sup> In addition, it should be remembered that the real share of the extracting industries in Russia’s GDP is significantly higher than reflected in official Rosstat’s statistics. The reason for this phenomenon is that a substantial part of the extracting companies’ incomes is realized through their trade departments by applying transfer pricing.

than the price instability displayed by other groups of commodities. In this connection, the countries where the national economy's structure has a strong bias towards raw materials suffer from additional difficulties in pursuing their macroeconomic policy because the changeability of prices for raw materials results in considerable fluctuations of budget revenue and the real exchange rates of the national currencies of the exporter countries. On the one hand, when the situation with prices is favorable, an increase of government revenue gives rise, as a rule, to a similar increase in budget spending obligations, the execution of which in the long run depends on the size of the future proceeds from the sale of raw materials, that is, on the situation on the world markets. Thus, if measures aimed at diversifying the national economy are taken, risks of an inadequately balanced budget policy become greater. On the other, during the period when the level of prices is high, the countries that mainly export raw materials often experience a leap in their national currencies' exchange rates, which accordingly lowers the competitive capacity of their national producers of tradable commodities<sup>5</sup> and enhances the risks of de-industrialization of the national economies. The macroeconomic vulnerability of exporter countries increases their country risks and lowers their attractiveness in the eyes of investors.

Secondly, the orientation towards raw materials has a negative effect on economic growth due to the technological specificity of the extraction of raw materials. Thus, the low labor intensity of the industries relying on raw materials - even if more jobs are created in the related sectors - makes it impossible, as a rule, to create an adequate number of jobs in the highly productive sector of the national economy. Besides, the technologies applied in the raw materials sector are relatively simple, and so, consequently, they can create only some relatively weak incentives for the development of processing enterprises with a high share of value added, thereby restricting the overall labor productivity growth in the national economy.

Due to the marked effect of economy of scale, the extracting industries are characterized by a high degree of production concentration. Therefore, it is typical for the economies relying on raw materials to be dominated by a few big companies, the latter playing a very special role in the economic and political life of their country, which results in a close merger of the interest of the State with those of the extracting corporations. This type of a socioeconomic structure, as demonstrated by the experience of many developing countries, can prevent any active competition in politics and in the economy alike.

Thirdly, in the countries depending on raw materials - all other conditions being equal - the size of the public sector and the level of government expenditure are usually higher. Extraction of mineral resources generates a substantial natural rent, which is withdrawn and then redistributed through the state budget. For this reason, the economic policy in such countries is, on the whole, associated with higher requirements to the system of public finance management and the quality of institutions in the public sector<sup>6</sup>. If these institutions are weak, the concentration of the tax base in the extracting sector, in combination with the extracting companies' domination, dramatically limits the opportunities for public control over the use of budget resources and increases the risks associated with corruption of the state apparatus<sup>7</sup>. The possibility for the countries exporting raw materials to increase their public expenditure on the basis of natural rent instead of on the basis of regular taxes levied on businesses and the population creates favorable conditions for the emergence there of an inflated and inefficient

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<sup>5</sup> See, for example, Collier P. Willem J. Gunning Policy Towards Commodity Shocks in Developing Countries. IMF Working Paper 1996-84. IMF, Washington DC, 1996.

<sup>6</sup> For example, P. Collier and A. Hoeffler (Testing the Neocon Agenda: Resource Rents, Democracy and Growth. Centre for the Study of African Economies, Oxford University, 2006 и Collier P. Managing Commodity Booms: Lessons of International Experience. Centre for the Study of African Economies, Oxford University, 2007) note the importance of the system of checks and balances for ensuring the public sector's efficient performance. At the same time, they demonstrate that in countries-exporters of raw materials the high share of the public sector in GDP is usually coupled with a weak system of checks and balances, thus limiting the prospects for long-term growth.

<sup>7</sup> Krueger A. The Political Economy of the Rent-Seeking Society. American Economic Review 64, 1974. P. 291-303.

state sector. This, in its turn, gives rise to the phenomenon of ‘the raw materials curse’<sup>8</sup>, when big exporters of raw materials are incapable of rationally utilizing the resources generated by exports and so, on the average, lag in their development behind countries that are poor in terms of natural resources.

It should be noted that the diversification of a national economy is by no means a guarantee of successful development; and, vice versa, the prominence of raw materials in a national economy does not always result in a country’s lagging behind the leaders of economic growth. There exist some examples of highly developed countries with a high share of the raw materials sector in their GDP (Norway, Australia), as well as of stagnation in some of the well-diversified economies (Japan, Portugal). However, in the majority of cases, successful economic development is accompanied by an increasing share, in the industrial sector’s structure, of industries that have nothing to do with raw materials, as well as with a growing role of high-tech industries in the services sectors.

So, the risks involved in the reliance of a development strategy on raw materials is very high indeed. It appears quite difficult for Russia to create appropriate conditions for a stable long-term socioeconomic development and to catch up with the OECD countries in the population’s living standards without carrying out a full-scale diversification of her national economy. In spite of the intensification, in recent years, of economic activity in the sectors that are not dependent on raw materials, as well as the increasing number of government documents where the necessity of diversification is strongly emphasized, it is still too early to speak of any definite structural shifts towards the processing industries, as the rate of output growth there is still insufficient for achieving the declared goals of diversifying the national economy and increasing GDP. Moreover, as is demonstrated below, the economic strategy which is currently being implemented is indicative of a certain disregard for creating the key condition for diversification – an adequate institutional environment.

### **Institutional development as a key diversification instrument**

While until the 1980s the most popular instrument applied in the economic growth policies of developing countries were state investments in a few ‘strategic’ or ‘priority’ sectors, as well as the other instruments involving direct state participation in the economy, later on, in the last quarter of the 20<sup>th</sup> century, the role of the State in regulation and restructuring of the economy was fundamentally revised and reassessed, and this applies to the world in general.

According to the latest common notions of the role of the State in economic development, its main function is to ensure favorable – and equal for all economic subjects – conditions for doing business. In order to achieve this goal, the government’s efforts are to be focused on the two most important areas – maintaining macroeconomic stability and improving the institutional environment.

Institutions are understood as a system of norms and rules accepted by society and providing for the adequate functioning of the economy and the state administration. The majority of popular definitions of institutions regard them as those including formal, legislatively consolidated norms and informal ones such as business traditions and the established implicit rules of social behavior. The quality and stability of national institutions can determine, among other things, the level of business costs, the attractiveness of participating in businesses for private investors, the level of investment activity in a given country, and the level and quality of competition on the markets, all these factors directly influencing the rate of economic development. Multiple cross-country studies have demonstrated the presence of a stable correlation between the quality of existing institutions and the rate of long-term growth<sup>9</sup>. In some

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<sup>8</sup> Auty R. *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. London: Routledge, 1993.

<sup>9</sup> The existence of such links is convincingly proved both in some academic works (see, for example, Keefer P. Knack S. *Why Don’t Poor Countries Catch Up? A Cross-National Test of Institutional Explanation*. Economic

later works, it was demonstrated that the cause and effect relationship in such correlations is vectored from institutions to long-term economic development, which provides additional substantiation for the necessity to create an institutional base for stable growth<sup>10</sup>.

In a broad sense, economic institutions can be regarded as a set of certain mechanisms and rules designed to ensure an adequate redistribution of resources across the economy, attraction of new investments, and training of labor resources, as well as to create a system of incentives for improving the performance of the national economy. Economic institutions can be conventionally classified as follows:

- legal institutions (those belonging to the judicial, legislative and administrative systems);
- regulatory institutions (the bodies responsible for the control and regulation of various aspects of enterprises' everyday functioning, as well as those with the right to suspend a company's operation);
- institutions responsible for human capital development (those belonging to the spheres of health care, education and social security);
- institutions responsible for coordination and distribution of risks (the credit and banking systems, the stock market, insurance companies, pension funds).

If the development of the two latter types of institutions can be influenced by the efforts of both the State and the private sector, for the former two, especially in a developing economy, it is the State that represents the key agent possessing some real potential for implementing relevant institutional reforms. In other words, it is the activity – or lack of it – of the State in reforming these two groups of institutions (essentially, improvement of law enforcement, the creation of an independent judicial system, reduction of the administrative load on the economy) that effectively determine a successful improvement of the business environment and the emergence of truly favorable conditions for Russia's economic development in the long run. However, the results achieved in 2004 – 2007 make it impossible to speak of any serious progress in this direction, while the need for institutional reforms is becoming increasingly urgent.

The problem of improving the system of national institutions becomes especially important in view of the necessity to diversify the national economy, because investment decision-making that involves the creation of new enterprises and implementation of new large-scale projects directly depends on the quality and stability of the institutional environment. Moreover, both domestic and foreign investors are sensitive to the ability of these institutions to ensure an adequate performance of a new enterprise. It should be noted that, in accordance with the results of the study conducted in 2007 by UNCTAD<sup>11</sup>, transnational corporations (TNCs), when adopting their decisions concerning making direct investments in the territory of a given developing country, are primarily guided by its level of macroeconomic, institutional and geopolitical (probability of military conflicts, terrorism, etc.) risks. In this connection, the share of those TNCs who point to stability of a national investment climate as an important or very important factor is 85 % (*Fig. 2*). In other words, the quality/stability of the investment climate,

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Inquiry 35, 1997. P. 590–602; Knack S. Keefer P. Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures. *Economics and Politics*, 7, 1996. P. 209; Shleifer A. La Porta R. Lopez-de-Silanes F. Vishny R. Legal Determinants of External Finance. *Journal of Finance*, 1997; Shleifer A. La Porta R. Lopez-de-Silanes F. Vishny R. Law and Finance. *Journal of Political Economy*, 1997) and in applied studies (see, for example, the annual reports published by the Fraser Institute Economic Freedom of the World).

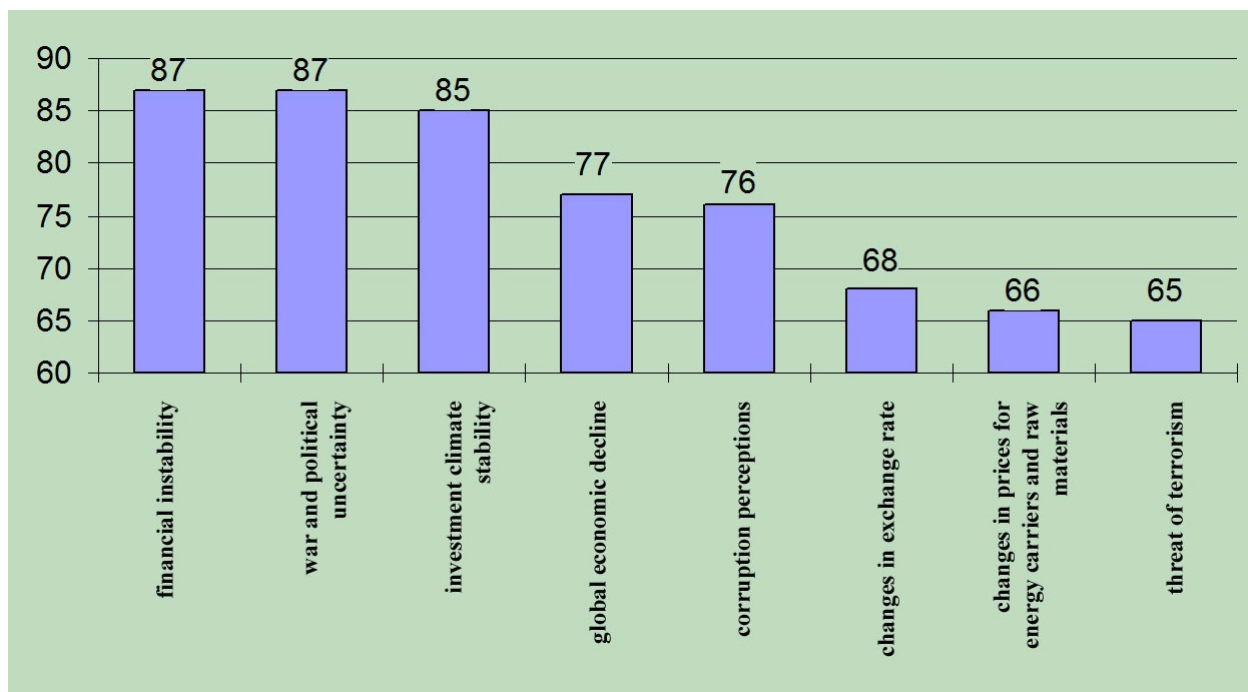
<sup>10</sup> Among major works in this field, we can note Acemoglu D. Johnson S. Robinson J. The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, Vol. 91, 2001. P. 1369–1401; Rodrik D. Subramanian A. Trebbi F. Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development. NBER Working Paper No. 9305, 2002; Easterly W. Levine R. Tropics, germs, and crops: the role of endowments in economic development. *Journal of Monetary Economics*, 50:1, 2003.

<sup>11</sup> World Investment Prospects Survey 2007–2009. UN, New York and Geneva. UNCTAD, 2007.

according to international investors, is as important for the diversification of an economy as the factors of political uncertainty and probability of war (87 %), or the factor of financial instability (87 %).

Figure 2

**Main risk factors of investment decision-making,  
by frequency of being mentioned by respondents, %.**



Source: results of UNCTAD's surveys.

The level of corruption was pointed to as a risk factor by the heads of 76 % of international corporations, thus becoming fifth in relevance. This can be explained by the fact that for those TNCs that are already operating in a given country the problem posed by corrupt national institutions can often be solved through making some exclusive 'deals' (both official and informal) with the national administrations, thus becoming effectively 'insulated' from the direct impact of the national institutional regime. However, such a system of deals lacks transparency and is not accessible for all the participants in economic activity, and so it cannot match an efficient system of national institutions capable of supporting the emergence and functioning of competitive markets.

Over the last few years, the relatively high level of foreign and domestic investments in Russia was sustained by high oil prices. Rapid growth of domestic revenues compensated, to a certain extent, the institutional deficiencies of the national economy, that is, the rate of market expansion and profit growth somewhat softened the risks of institutional backwardness. Such a situation cannot be regarded as stable. It can be expected that the requirements to Russian institutions, in face of low oil prices, will become much higher. Probably, investors will no more be willing to ignore the existing institutional problems and to expose themselves to the associated excessive country risks if the growth rate of real incomes in Russia drops below 10 % per annum.

At the same time, one cannot overlook the fact that in recent years the structure of investment in Russia has been rather lopsided. Growth of capital investments could be observed

primarily in the sectors dependent on mineral resources<sup>12</sup> and on the production of consumer commodities, as well as on the real estate market. Investments in high-tech industries and in the development of export commodities that are not traditionally Russian (that is, where risks are higher) are still insufficient.

During the transition to a post-industrial phase of development, the requirements to the quality of institutions become even higher. This happens because, by comparison with the industrial phase, the development dynamics of a post-industrial economy is determined by somewhat different factors that are much more sensitive to the quality of institutional environment. This set of mutually dependent factors is as follows:

- increasing requirements to human capital quality, which necessitate some general changes in the education and health care systems, as well as in some other institutions capable of ensuring some positive changes with regard the broad notion of quality of life (including personal safety, environment protection, access to information, and higher level of trust in society);
- an innovative economy requiring the existence of an adequate system for supporting entrepreneurial activity (financial instruments and business services, protection of authorship rights, low costs of entry onto the market, fair competition);
- further specialization and division of labor, which involves certain requirements to the mechanisms for coordinating different types of activity and a need for lower transaction costs;
- an increasing complexity of the economic system and the emergence of new sets of risks threatening development stability, thus implying the creation of reliable systems for risk distribution, efficient monitoring of socioeconomic processes, and strengthening the partnership between the State and non-state economic agents;
- an increasing role of information and information technologies, which entails further growth of demand for information concerning the operation of all the leading institutions and organizations, higher requirements to their transparency level, higher demand for democratization of various aspects of public life, and easier conditions for the creation of various coalitions and special groups of interests.

### **The interrelation between the indices of economic and institutional development: Russia's experience in the context of global development**

In the last 10–15 years, the study of cross-country differences in the quality of institutional environment and its individual components has branched off into an independent area of empirical research in social science. The methodological base depends on the degree of consensus as to what can be considered to be the best international practices in the sphere of state management, as well as what are the main factors that determine the performance level of the public sector. The institutional environment indices applied in this analysis reflect the academic community's views of the key institutional determinants of economic development like efficient protection of ownership rights, efficiency of law enforcement, accountability of officials, budget transparency, absence of corruption, etc.

When building institutional indices, researchers apply macroeconomic data, surveys of enterprises and other recipients of state services, expert opinions, results of elections, as well as various combinations of these information sources. In this connection, a significant correlation

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<sup>12</sup> Even in the sectors relying on the extraction of mineral resources, some evidence can be found that they spend too little on geological prospecting surveys – that is, invest insufficiently in their industries' long-term development.



can be noticed between the indices based on different data and generated for different purposes<sup>13</sup>. It has also become a common practice to apply such indices in modeling economic growth.

The indices describing the quality of institutional environment published by different organizations provide some well-coordinated estimates of the dynamics of the quality levels of the key institutions of Russia's economy. At present, in terms of the quality of its institutions, Russia is rather far behind both developed countries and some transition economies of Central and Eastern Europe.

On the whole, one can distinguish two 'clubs' among the former socialist countries. Firstly, these are the countries of Central and Eastern Europe and the Baltic states, whose quality of institutions is higher than that of the second 'club' and the institutional environment displays stable positive changes. The second 'club' is represented by the CIS countries, which typically have been experiencing institutional stagnation, and in some cases even degradation.

It is also noteworthy that in countries like India and China, with a lower per capita GDP than Russia's, which, nevertheless, have been demonstrating in recent years a stable high rate of growth, the indices describing the quality of institutions according, for example, the World Bank's Worldwide Governance Indicators (WGI), were higher than in throughout the whole period of observation – since 1996. At the same time, the dynamics of institutional improvements in India in that period was no worse than in Russia, while in China it was better than in Russia.

Significantly, the majority of the international indices analyzed below that reflect the level of institutional development demonstrate some trend in their cross-country dynamics. It is reasonable to assume that if a trend is analyzed on the basis of several different indices generated by different independently working organizations, the conclusion as to the absence of any noticeable institutional progress in Russia becomes more reliable.

As demonstrated by analysis of different international indices, economic growth in Russia in 1999 – 2007 was not accompanied by any qualitative changes – for example, in the development of institutions determining ownership rights guarantees and the quality of regulation environment, or in terms of lowering corruption levels. Russia's typical feature is its relatively high transaction costs, which lowers the potential attractiveness of this country for investors and creates unfavorable conditions for the entry of new companies on the market. This country's domestic market is less competitive due to the relatively high costs of starting and operating a business and the heavy 'corruption load' on entrepreneurs. Besides, as follows from OECD's index describing restrictions on foreign direct investments, Russia has an abnormally high – by comparison with other countries – barrier in the way of foreign investments. In some important sectors of the economy with good prospects for growth (for example, transport, finance, telecommunications) the level of discrimination of foreign investors remains very high, or is increasing.

As a result, present-day Russia displays a combination of relatively high level of economic development with a relatively low quality of the institutional environment, which is by no means typical of the majority of countries across the globe. Here, we apply to this combination the term 'institutional lag'.

In this connection, it should also be noted that in those instances when Russia does display some relatively high institutional indices, this most often has to do with her still existing advantages in terms of human capital. However, this is largely the reflection of this country's success achieved in the spheres of education and science during the Soviet period, as well as the inertia existing in these spheres.

As noted earlier, the existence of a noticeable gap between the levels of economic and institutional development in Russia can be observed when analyzing nearly all of the most

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<sup>13</sup> Kaufmann D. Kraay A. Governance Indicators: Where Are We, Where Should We Be Going? World Bank. Policy Research Working Paper No. 4370. 2007.

popular institutional indices described in empirical studies, including the already mentioned World Bank's WGI<sup>14</sup> (the data for 2006), Transparency International's CPI<sup>15</sup> (the data for 2006), and Political Risk Services Group's ICRG<sup>16</sup> (the data for 2005). Moreover, in recent years the scale of this institutional lag has only been increasing (see *Fig. 3–12*). This conclusion with regard to Russia is true both when reviewing the sample consisting of all the countries of the world and when looking the group limited to only the post-socialist countries.

Over the period from 1996 through 2006, in the majority of cases under consideration, as follows from the dispersion diagrams, the significant growth of production and incomes in Russia occurred without any accompanying improvement in the quality of institutional parameters. In some instances, growth of per capita GDP was coupled with some limited improvement in the quality of institutional environment (the indices of the performance level of state administrative bodies or anti-corruption control bodies), and in some cases (the index of quality of legal institutions) – by its deteriorating parameters.

In all the dispersion diagrams Russia is always placed further to the left and above the bulk of countries across the world and all the OECD countries, that is, surrounded by a certain groups of countries of a specific and rather stable composition. The other countries displaying a lag in institutional development comparable to Russia's are Argentina, Venezuela, Belarus, Iran, Italy, Kuwait, and Saudi Arabia. All these countries (except Italy) are notorious for the presence of some serious obstacles to stable post-industrial development. A greater lag in institutional development is displayed only by such tiny countries as Bahrain, the Seychelles, Trinidad and Tobago, and Equatorial Guinea.

It must be once again emphasized that the lagging of Russia's institutional development behind economic development has been increasing in recent years. For example, the corruption index studied by Transparency International (*Fig. 11 – 12*) demonstrates that in 1995 the level of incomes in Russia was much more compatible with the level of institutional development than it was in 2005, when incomes had increased considerably while the quality of institutions remained nearly at the same level, and so the resulting gap became significant (Russia's position in the graph shifted to the left and upwards).

The opposite situation – the lagging of the rate of economic development behind that of institutional development – can be observed mainly in countries participating in military conflicts or undergoing post-war reconstruction, that is, where any normal economic activity is associated with some extraordinary country risks. Tajikistan, which sits below the regression line and beyond the trust interval, is a good illustration of this situation. For the countries belonging to this groups, which also includes Georgia and Moldova, the combination of relatively well-developed institutions with a very low income level points to the presence of some institutional reserves for intense growth in the short term, on condition that the existing institutions do not deteriorate.

The fact that, at present, none of the countries in world displays a level of GDP PPP below 18,000 USD coupled with a level of institutional development similar to or below Russia's appears to be of fundamental importance. A highly developed country with weak institutions is an unprecedented phenomenon in the global history of economic development. The presence of efficient institutions is a common feature of a majority of countries with the PPP level above 18,000 USD. This empirical finding, in our opinion, should be interpreted as follows: the institutional lagging behind cannot increase forever; once it reaches a certain level, the country is faced with a situation when further growth can no longer be possible without accompanying adequate institutional changes.

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<sup>14</sup> World Bank Worldwide Governance Indicators (Governance Matters).

<sup>15</sup> Transparency International Corruption Perceptions Index.

<sup>16</sup> Political Risk Services Group International Country Risk Guide.

Of course, the existence of a stable correlation between the levels of institutional development and GDP per capita across a global sample can by no means be regarded as a reliable formal proof of the assumption that without an acceleration of institutional reforms no rapid further growth is possible in Russia. However, such a correlation represents a rather convincing illustration of the fact that, as a rule, within the framework of an averaged development trajectory observed in the post-war period in the successfully developing countries, no serious gap between income growth and institutional improvement can be observed. Although there probably exist some exceptions to this rule, the probability of a successful economic development in presence of such a gap appears to be statistically insignificant. At least, no such case has been observed in modern economic history.

It appears unwise, when planning Russia's economic development strategy, to ignore the existing global connections between institutions and growth. Given the existing world experience, any hopes for Russia's further progress without serious institutional modernization would seem economically unsubstantiated and politically dangerous. Any reliance on the possibility of long-term growth based on some unique, purely 'Russian' way of development appears too risky. Russia's level of per capita GDP is already beyond the limits of the statistically significant probability interval as indicated by her current quality of institutional environment.

In other words, with due regard for the rate of economic growth in Russia during the past decade and the global trends of development, one can speak of the risk of Russia having reached the economic development limit set by the quality of her institutions.

When reviewing the same database - the World Bank's Worldwide Governance Indicators - one can estimate the scale of institutional improvements necessary for overcoming the lag in institutional development and lowering the relevant risks. Such estimates are based on the assumption that countries with GDP PPP of 18,000 USD possess on the average a noticeably higher quality of institutional environment. In particular, the targets for institutional reform acceleration in Russia could be as follows<sup>17</sup>:

- by the index of performance level of state administrative bodies - the level of Italy (0.38 by the scale from - 2.5 to 2.5), Russia's current index being - 0.43 (see *Fig. 3*),
- by the index of quality regulatory institutions - the level of Korea (0.70), Russia's current index being - 0.45 (see *Fig. 4*),
- by the index of legal institutions quality - the level of Italy (0.37), Russia's current index being - 0.91 (see *Fig. 5*),
- by the index of efficiency of anti-corruption control - the level of Italy, Korea, and Slovakia (0.31), Russia's current index being - 0,76 (see *Fig. 6*).

An analysis of successful acceleration of institutional transformations in the countries of Eastern and Central Europe, performed in the framework of preparing these countries for their accession to the European Union, has demonstrated that the institutional improvements somewhat similar in scale (approximately 1 point by a five-point scale) can be quite realistically implemented within a period of 8 - 10 years (see *Fig. 13 - 14*).

It should also be noted that the countries with levels of legal institutions' development comparable to Russia's<sup>18</sup> (the corresponding institutional index being in the range from - 0.96 to - 0.86), displayed a rather moderate growth rate in the period from 1996 to 2006, their average annual rates being in the interval of - 2.9 % to 4.4 % per annum<sup>19</sup>. In other words, at present there is no other country in the world demonstrating a stable growth rate of about 7 % per annum

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<sup>17</sup> Below we cite the bottom line institutional development indices for countries with GDP PPP of 18,000 USD.

<sup>18</sup> Bangladesh, Bolivia, Burundi, Cuba, Laos, Niger, Paraguay, Ecuador.

<sup>19</sup> If Azerbaijan is excluded from this group (its average growth rate being determined mainly by a leap in oil production amounted to 12.4 % per annum).

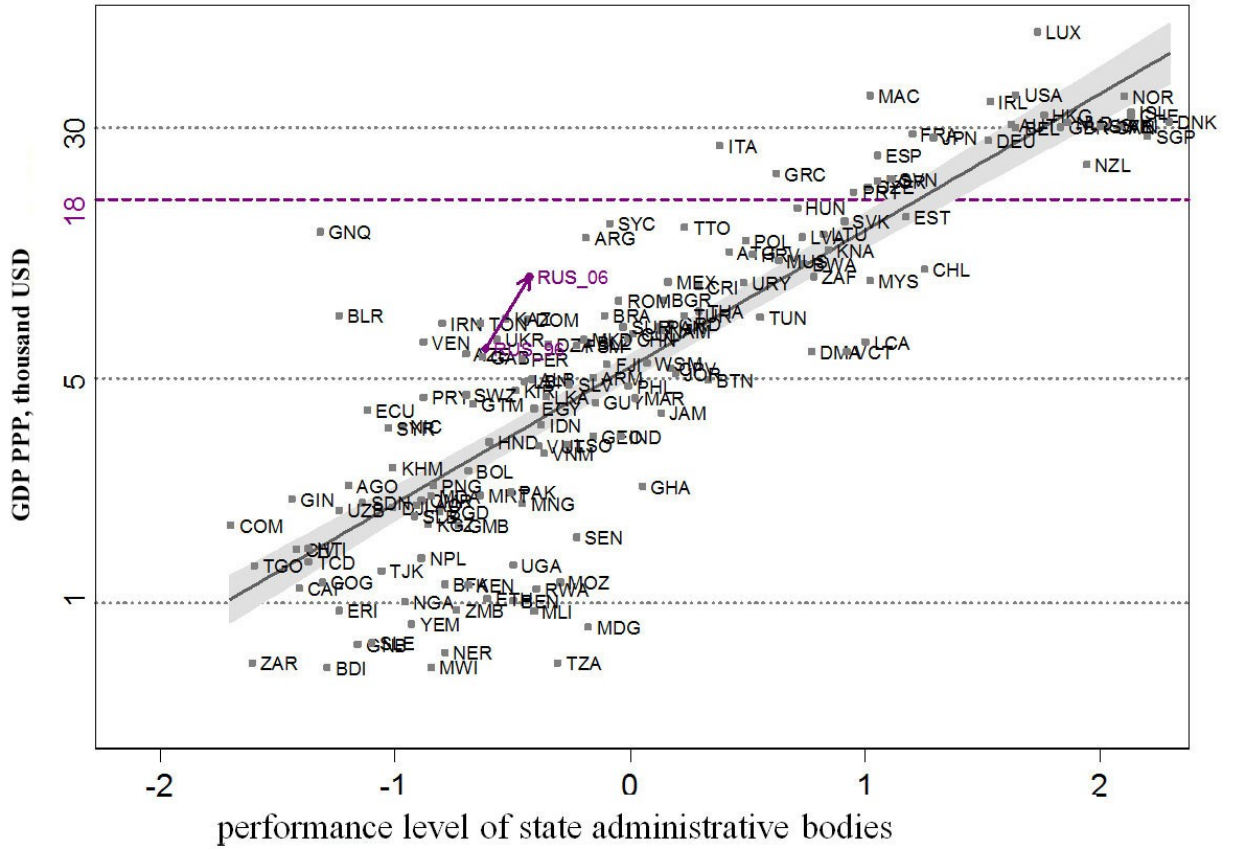
and Russia's level of development of legal institutions. This points to the risk of an abrupt halt of growth, especially in an event of a protracted period of low prices on the raw materials markets which, as is generally believed, in the previous period acted as the principal factor that enabled Russia to achieve a high growth rate without implementing adequate reforms and so was the cause of such dramatic lagging behind in terms of institutional development.

Similar conclusions can be drawn on the basis of the analysis the corruption perceptions index generated by the non-governmental organization Transparency International. According to this index, the gap between Russia's levels of institutional and economic development is greater than that displayed by any other post-socialist country (see *Fig. 11 – 12*).

Analysis based on a global sample of countries

Figure 3

Level of GDP per capita and performance level of state administrative bodies (WB WGI), 2006

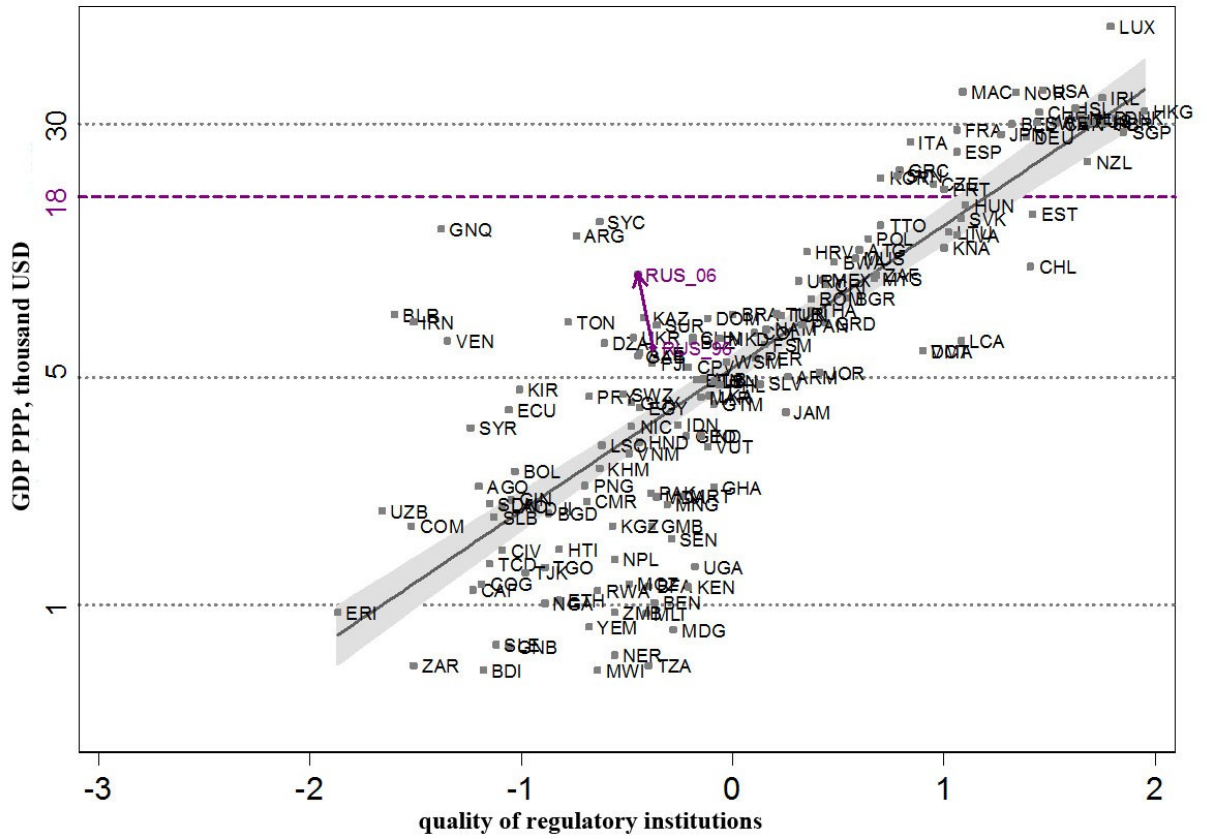


Note. Hereinafter, the gray color marks the 10% trust interval plotted on the basis of econometric estimates of per capita GDP's dependence on e given institutional variable. The data for Russia are shown for the first and last years of the period for which data are available. The horizontal dotted line marks the GDP PPP level of 18,000 USD. For the list of abbreviations used here, see the Annex.

Source: World Bank World Governance Indicators, World Bank World Development Indicators.

Figure 4

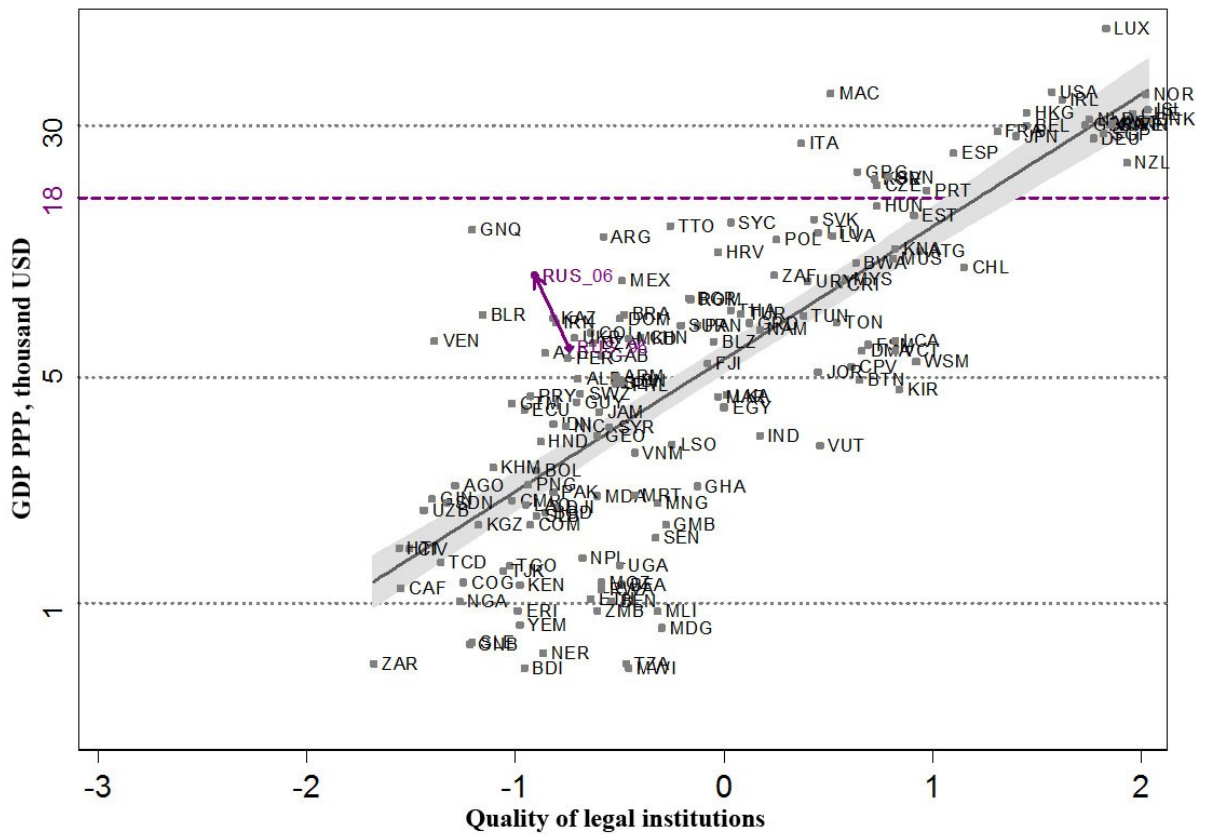
Level of GDP PPP and quality of regulatory institutions (WB WGI), 2006



Source: World Bank World Governance Indicators, World Bank World Development Indicators.

Figure 5

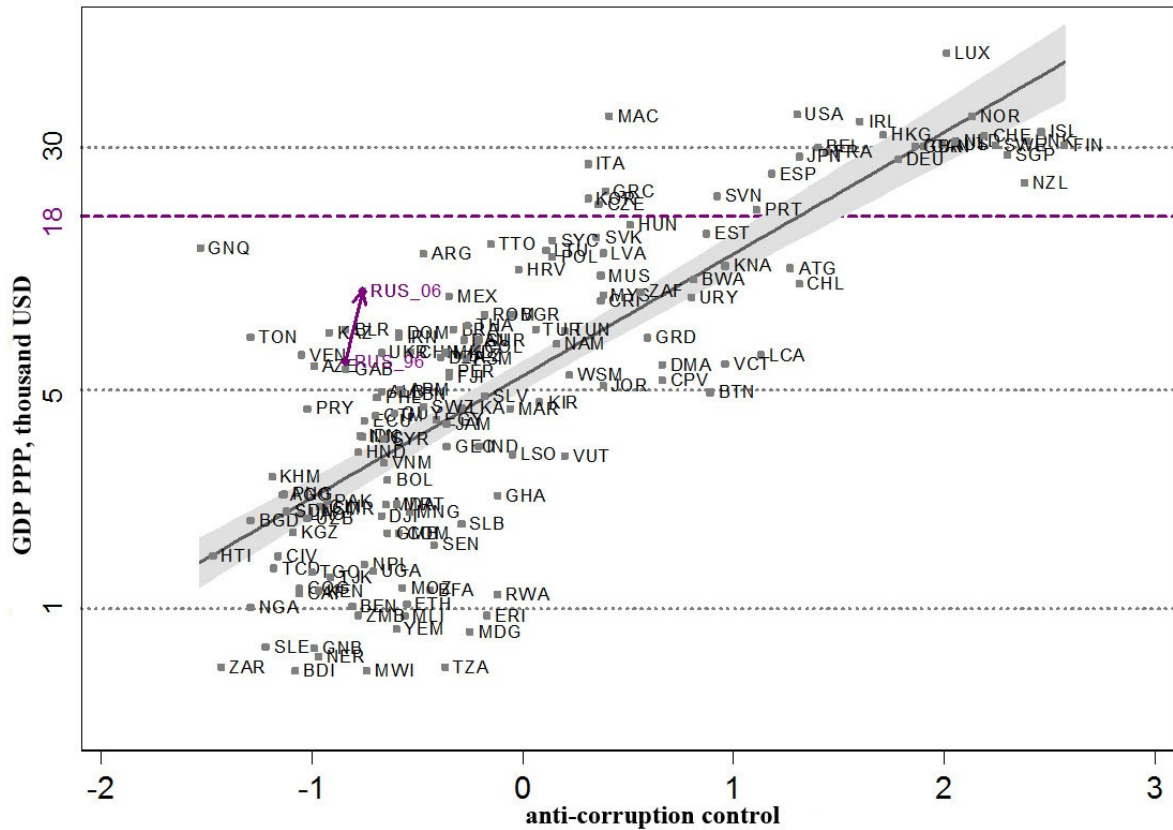
Level of GDP PPP and quality of legal institutions (WB WGI), 2006



Source: World Bank World Governance Indicators, World Bank World Development Indicators.

Figure 6

**Level of GDP per capita and anti-corruption control (WB WGI), 2006**



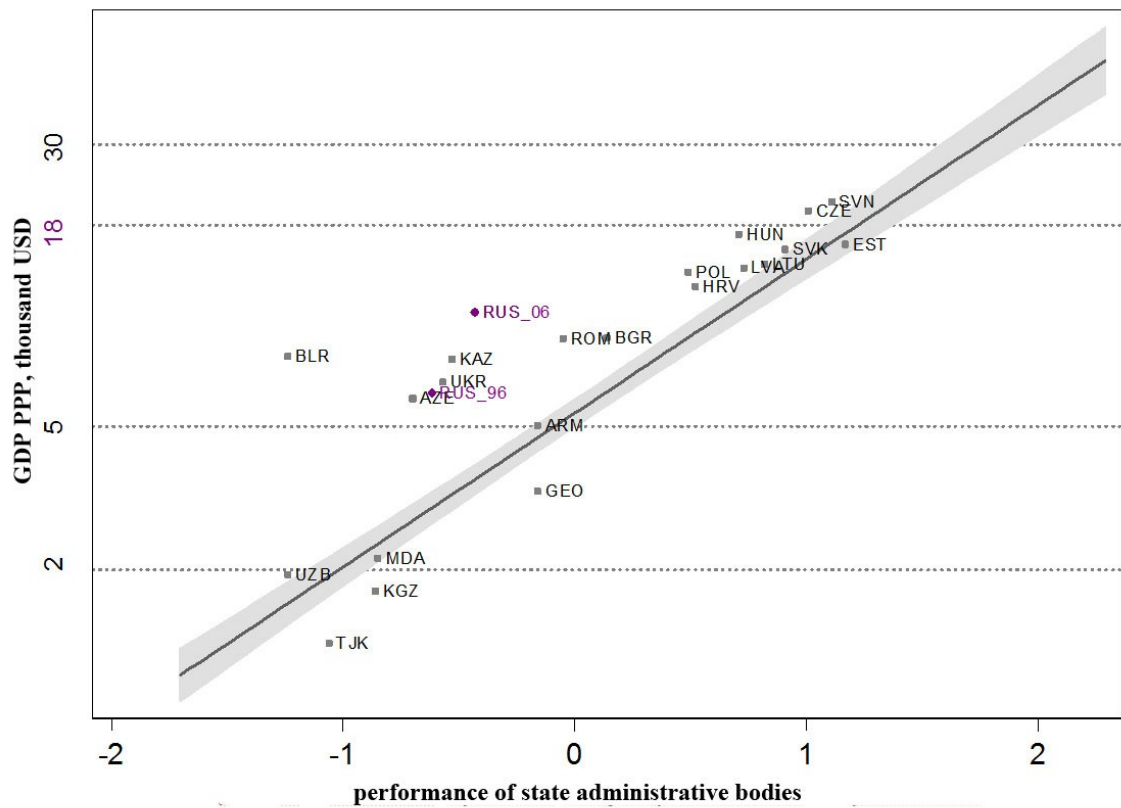
Source: World Bank World Governance Indicators, World Bank World Development Indicators.



Analysis based on a sample of post-socialist countries

Figure 7

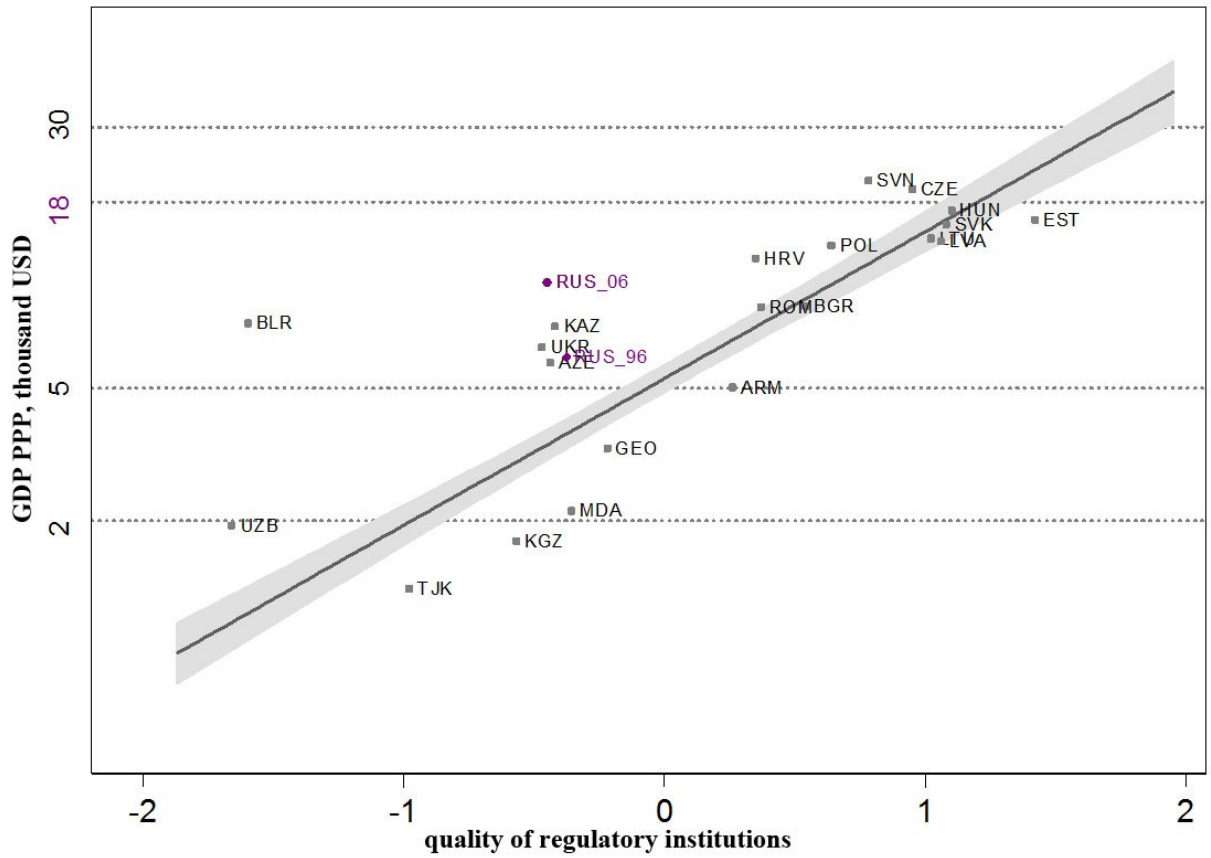
Level of GDP PPP and performance level of state administrative bodies (WB WGI) in post-socialist countries, 2006



Source: World Bank World Governance Indicators, World Bank World Development Indicators.

Figure 8

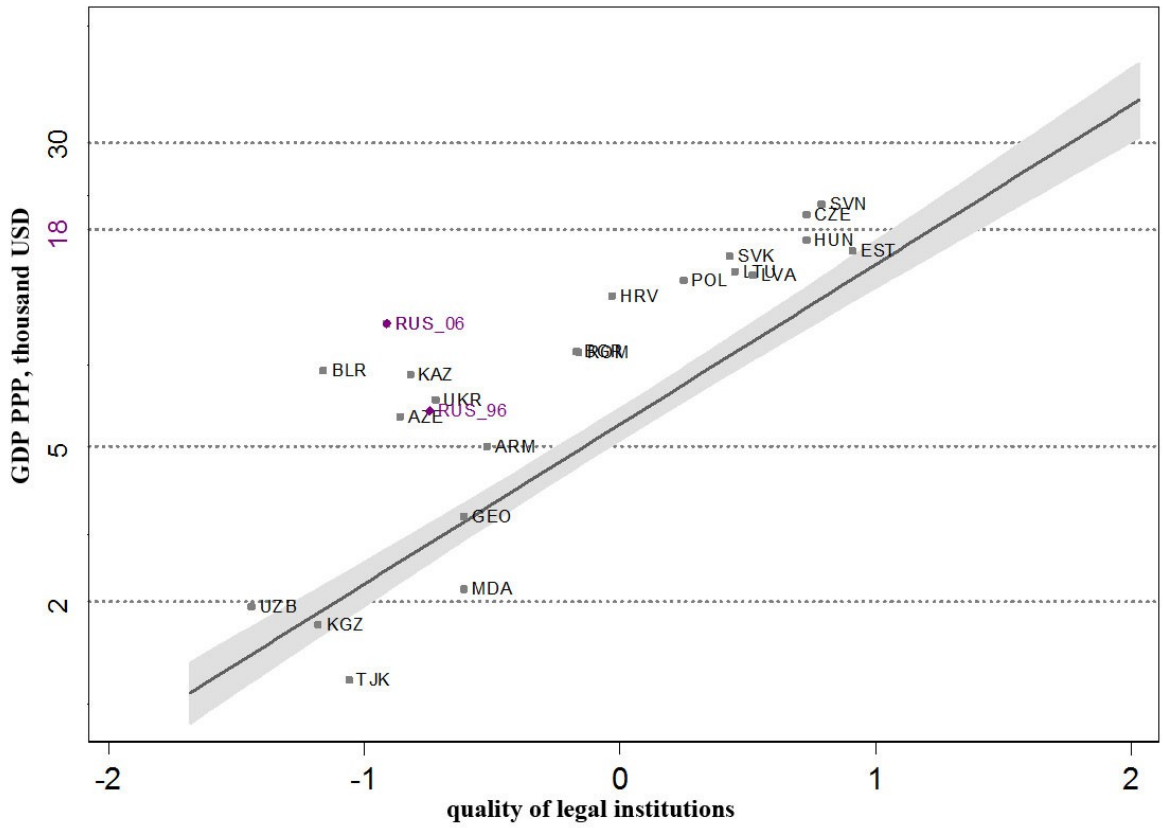
Level of GDP per capita and quality of regulatory institutions (WB WGI) in post-socialist countries, 2006



Source: World Bank World Governance Indicators, World Bank World Development Indicators.

Figure 9

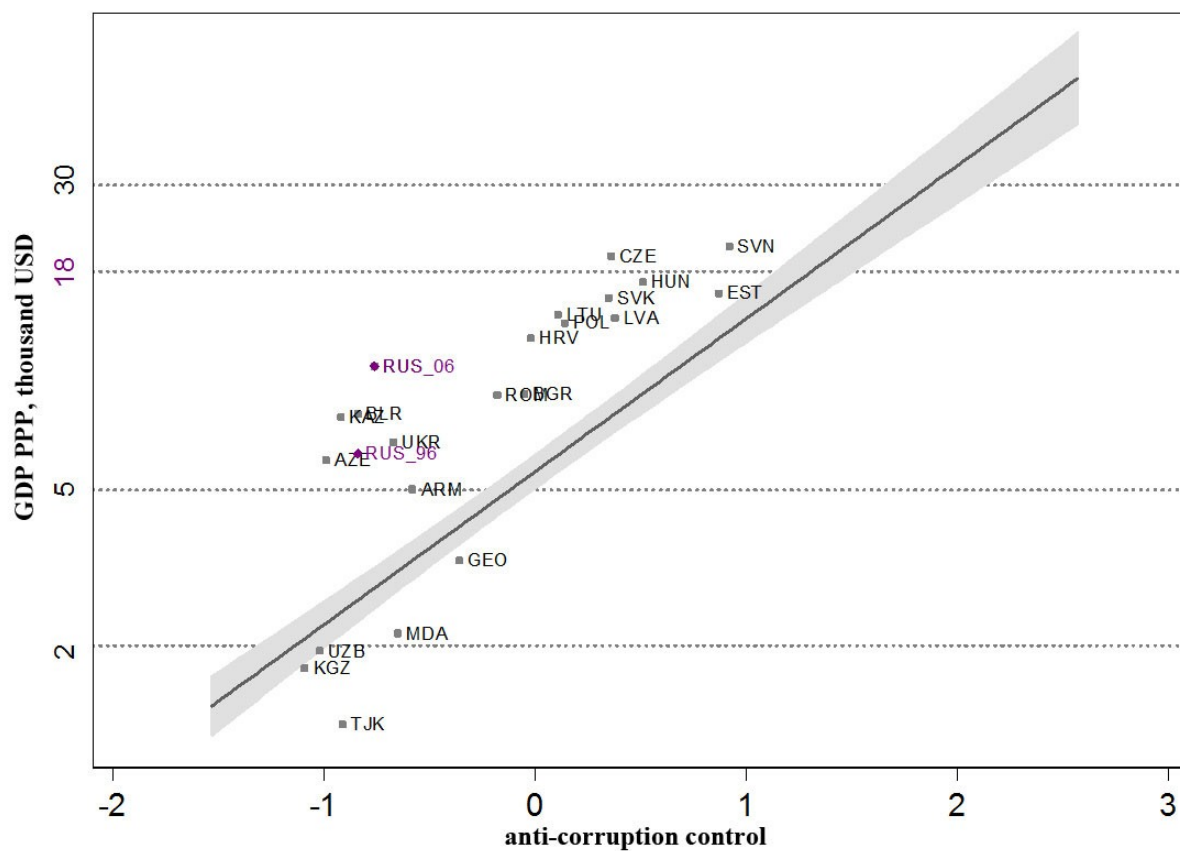
Level of GDP PPP and quality of legal institutions (WB WGI) in post-socialist countries, 2006



Source: World Bank World Governance Indicators, World Bank World Development Indicators.

Figure 10

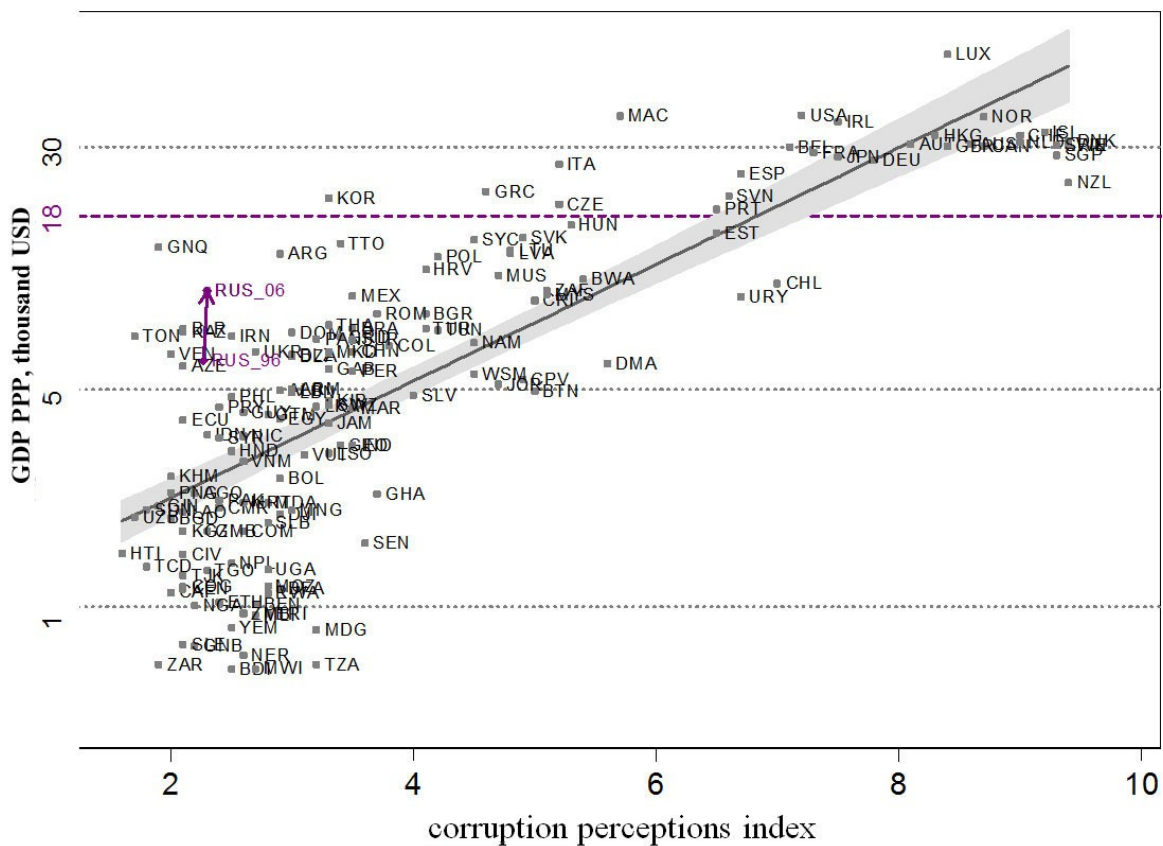
Level of GDP PPP and anti-corruption control (WB WGI) in post-socialist countries, 2006



Source: World Bank World Governance Indicators, World Bank World Development Indicators.

Figure 11

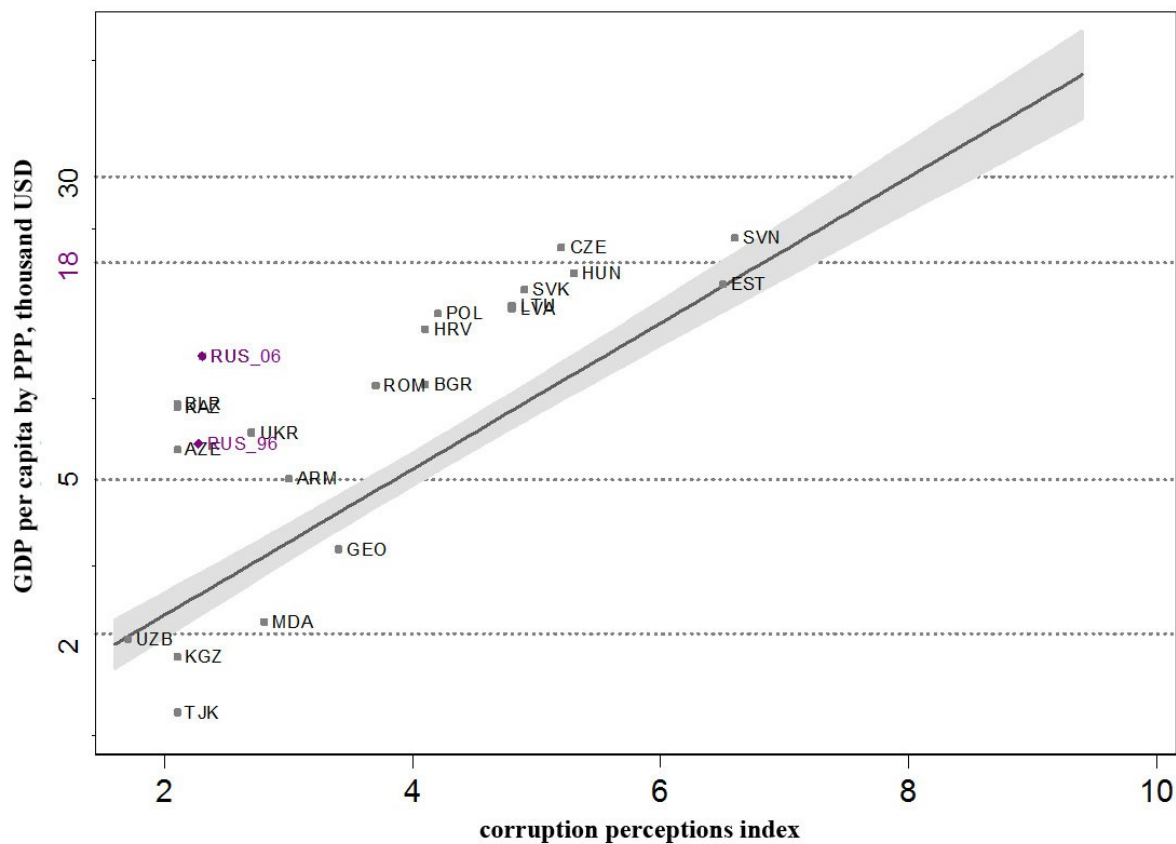
### Level of GDP PPP and corruption perceptions (TI CPI), 2006



Source: Transparency International Corruption Perceptions Index, World Bank World Development Indicators.

Figure 12

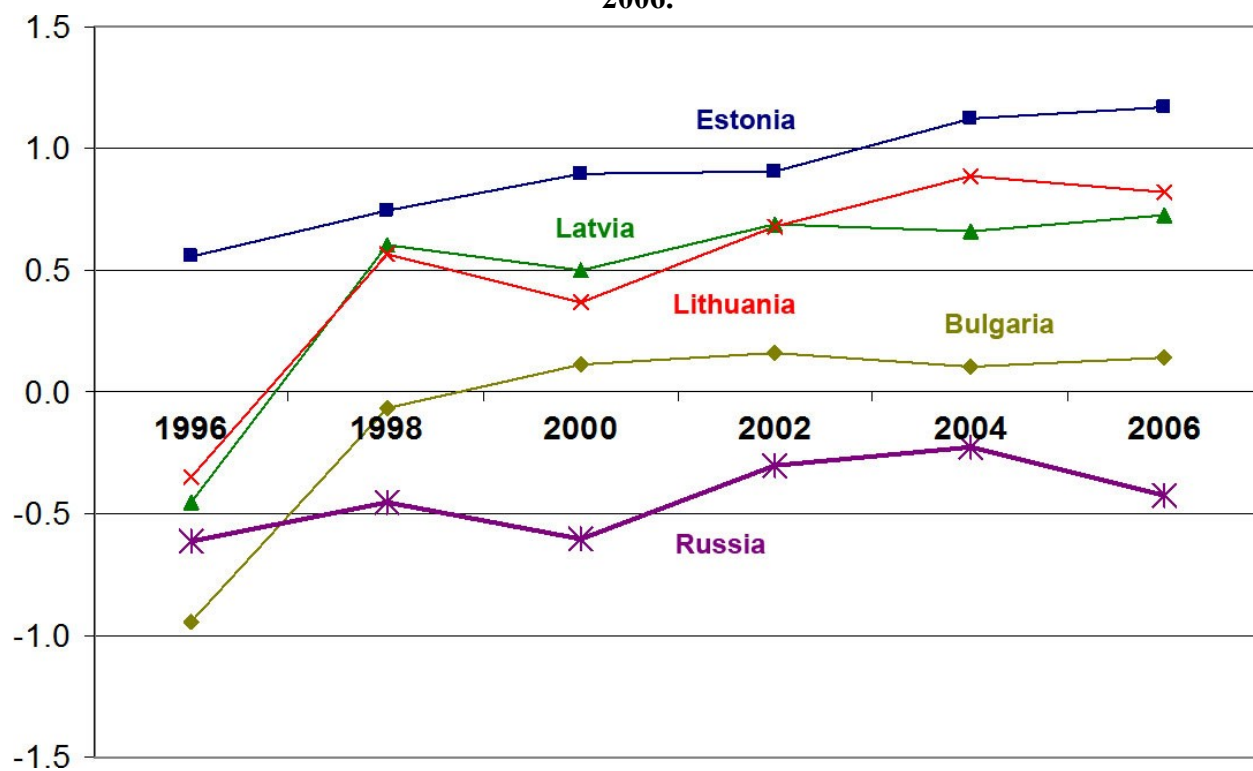
Level of GDP per capita and corruption perceptions (TI CPI) in post-socialist countries, 2006



Source: Transparency International Corruption Perceptions Index, World Bank World Development Indicators.

Figure 13

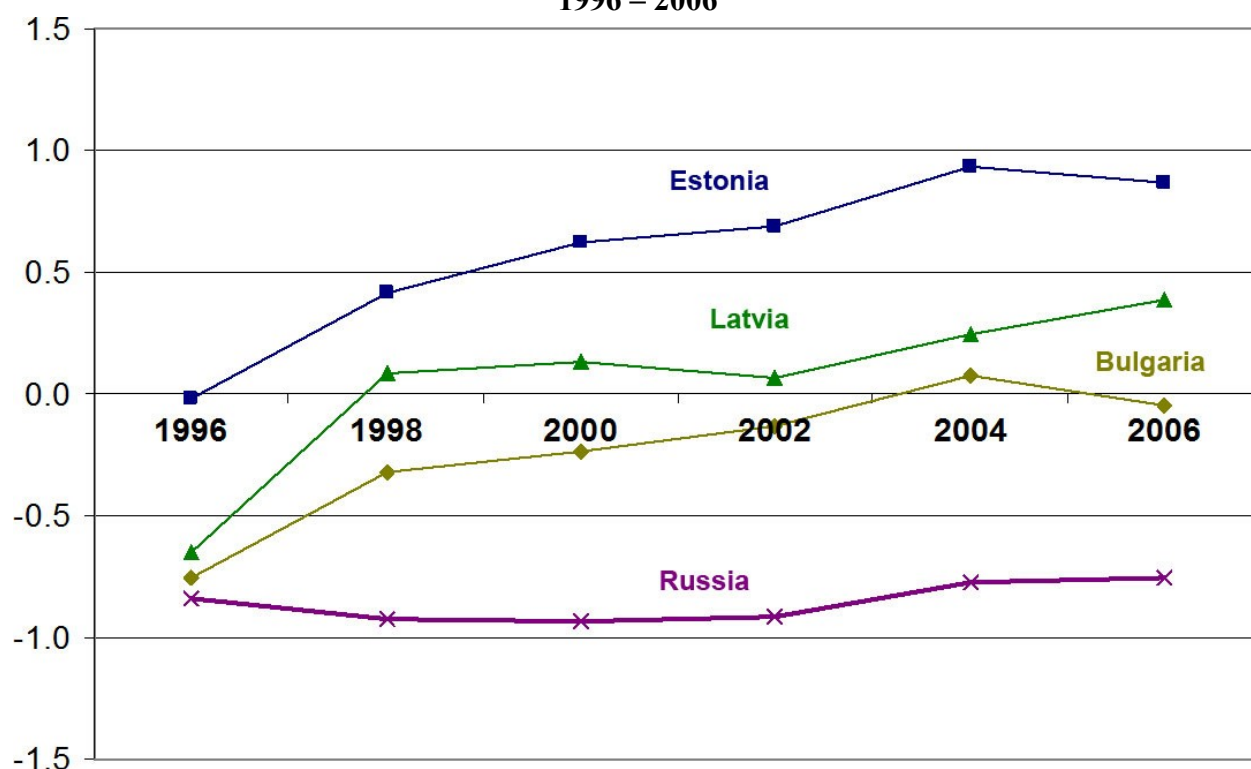
**Improvement of performance level of state institutions in post-socialist countries, 1996 – 2006.**



Source: World Bank World Governance Indicators.

Figure 14

**Strengthening of anti-corruption control in post-socialist countries,  
1996 – 2006**



Source: World Bank World Governance Indicators.

### Prospects for the acceleration of institutional reforms

During the past decade, some experience of accelerating institutional development and improving the performance level of key institutions over relatively short periods of time has been gained on an international scale. Thus, in the last 10 years, according to the World Bank (WB WGI), the quality of national institutions was being actively improved by many post-socialist countries, and among these, primarily those that were preparing for their entry in the EU. Also in 1996 – 2006, growth in institutional indices was demonstrated by some developing countries in Asia and Africa, where this phenomenon is linked to a low starting level coupled with active reforming of the institutional environment. *Table 2* lists the countries that succeeded in improving their key indices by 0.8 points or more on a ten-point scale. These countries effectively achieved an institutional leap comparable by its scale with what we believe to be in store for Russia – if this country is indeed going to create a minimum set of institutional conditions adequate to the established goal of achieving an income level compatible with that in the OECD countries.

Table 2

#### Improvement of quality of institutions, 1996 – 2006.

Anti-corruption control		Performance level of state administrative bodies		Quality of regulatory institutions		Quality of legal institutions	
Latvia	1.03	Malta	1.45	Armenia	1.59	Liberia	1.11
UAE	1.03	Latvia	1.19	Liberia	1.53	Malta	1.04
Bahamas	1.00	Lithuania	1.17	Iraq	1.53	Qatar	0.83



Qatar	0.95	Bulgaria	1.08	Tajikistan	1.28
Estonia	0.89	Surinam	0.86	Gambia	1.28
Liberia	0.88			Iceland	1.20
Tajikistan	0.83			Dem. Rep of Congo	1.13
Malta	0.82			Georgia	0.94
				Ethiopia	0.92
				Serbia	0.91

Note. The table demonstrates changes of the indices in absolute terms measured on a scale from -2.5 to 2.5.

In this connection, it seems reasonable to take a closer look at the individual experience of some European countries that have succeeded in significantly accelerating their institutional transformations, including import of institutions. The most well-known examples of this kind can be found in the framework of the European Union's expansion to countries with lower development levels (Southern Europe, Ireland, Central and Eastern Europe).

*Ireland's experience in accelerating institutional reforms and improving the national economy's competitive capacity<sup>20</sup>*

The experience of Ireland in the implementation of innovative reforms that included, among other things, the government's large-scale activity aimed at improving the country's investment climate and competitive capacity represents one of the most successful examples in this sphere.

Ireland is often referred to as an example of dramatic acceleration of institutional development as part of a national modernization program involving economic liberalization, expansion of international cooperation and strengthening of social partnership. Ireland's reforming was started in the second half of the 1980s, and by the middle of the next decade the country's national economy had been displaying stable growth – which is explained by a significantly increased inflow of foreign direct investments, the country's entry in the EU and employment growth. In the 5 years between 1996 and 2001, the volume of industrial products exports to the USA rose approximately eightfold and reached the level of nearly 16 billion USD. During a very short period of time the government managed to make the country's national investment climate much more attractive by radically altering its policy and reorienting the government structures towards attracting investments and maintaining a high level of competitive capacity.

The key components of Ireland's experience can be described as follows:

- reduced tax burden and measures designed to decrease the value of labor force: lower taxes levied on the wages fund, radical lowering of the rates of taxes on corporate and personal incomes;
- reduction of the size of the public sector, including the share of state expenditures in GDP and the number of state officials;
- liberalization of the labor market – lowering of unemployment and social benefits, cuts on employment guarantees, introduction of incentives for female employment;
- deregulation of commodity markets, thus making the entry onto the market easier for new enterprises; accelerated (by comparison with the EU) liberalization of the telecommunications market;
- complete restructuring of the industrial policy: tariffs and quotas replaced by newly created development agencies, priority development of infrastructure, market

<sup>20</sup> This section is based on the studies by Annett A. Reform in Europe: What Went Right? Finance and Development. Volume 43, Number 3. September 2006 and McDowell A. Ireland's competitive advantage. Presentation, May 14. FORFAS, Dublin, 2002.

regulation and competition policy; subsidies to strategic investors enabling them to create new jobs;

- reform of education and vocational training – a system for forecasting of the needs for qualified cadres in the key sectors, strengthening of cooperation between educational establishments and businesses;
- social partnership – an effective mechanism for consultations with the private sector, participation of trade unions in the elaboration of economic policy, successful annual agreements with trade unions concerning restrictions on wages growth;
- the advantages offered by membership in the EU, including incentives for accelerating the liberalization of foreign trade and the domestic markets, as well as for reform of state finances as a factor responsible for the attraction of foreign direct investments;
- competitive capacity remains the focus of government policy, a consensus having been achieved in understanding that the achievement of almost all of the government's goals depends on maintaining the entrepreneurial sector highly dynamic; annual analysis of the country's competitive capacity by comparing national indices with those of the other OECD countries; the government's readiness to adopt adequate measures for eliminating the existing lags in development.

On the whole, the long-term success achieved by Ireland is directly linked to the successful implementation of government policy in the spheres of regulation, infrastructure, education and tax policy. Ireland's ability to maintain its competitive advantages is based not on the availability of natural resources but on the qualification level of the labor force, society's unity, favorable investment climate and the government's quick and ready response to changes in the economic situation.

### *The experience of the countries of Central and Eastern Europe in acceleration of institutional transformations<sup>21</sup>*

As noted earlier, in the past decade, many countries in Central and Eastern Europe demonstrated significant progress in strengthening their key institutions. The leaders in this process were the countries that joined the European Union in 2004, and first of all Hungary, Poland and Czechia. For instance, the corruption indices in Czechia, after their dramatic decline since the mid-1990s, reached the level of the countries that acceded to the EU thirty years earlier (Greece).

On the whole, over the past decade, this group of countries has set a good example of 'import of efficient institutions'. Having set the goal of entering the EU, they began to consistently upgrade their institutional standards, thus bringing them up to the European ones. As a result, some of them, after departing in 1996 from the level of Russia (Latvia, Lithuania) or even that below Russia's (Bulgaria), they succeeded in improving their indices of the performance level of state administrative bodies and anti-corruption control by approximately 1 point (on a five-point scale), while Russia's indices in these areas remained practically unchanged. The difference between the development vectors displayed by Russia and the new EU members (the latter having been orientated towards import of institutions) becomes most vivid when the changes in the quality of regulatory and legal institutions are compared.

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<sup>21</sup> This section is based on the studies by Anderson J. H., Bernstein D. S., Gray C. W. *Judicial Systems in Transition Economies. Assessing the Past, Looking to the Future*. World Bank. Washington, DC, 2005; Anderson J. H., Gray C. W. *Anticorruption in Transition - 3. Who is Succeeding and Why?* World Bank. Washington, DC, 2006.

In particular, the 2002 – 2005 period saw additional dramatic acceleration of institutional transformations in those post-socialist countries that had formerly been lagging behind the development leaders. This primarily applied to Slovakia, Bulgaria and Romania. In these three countries, as well as in some other Central European countries, the process of entry into the EU served as the most important factor of reform acceleration, the core idea being the need to restructure national institutions on the basis of European standards. Within the framework of the accession process, the EU granted to these countries some substantial technical aid, while simultaneously regularly monitoring the functioning of the most important national institutions.

Among the factors that constitute the experience of the Central European countries in accelerating their institutional reforms, we can distinguish the following ones:

- with regard to administrative barriers – the measures designed to accelerate the registration of companies, reduce the number of audits, simplify technical standards and requirements, and generally diminish opportunities for direct contacts between officials and businesses;
- in the part of customs procedures – modernization of the customs agencies on the basis of EU legislation alongside some substantial investment in the automation of customs operations. This resulted in a simultaneous improvement of the efficiency and transparency of customs operations which are being increasingly switched over from paper documentation to online monitoring of all customs processes. The selective principle is increasingly applied to customs checks, which rely on formal estimates of the risks of specific trade operations;
- in the part of tax administration – a switchover to a functional organization of the tax service, creation of special departments for dealing with big taxpayers and a system for electronically submitting tax declarations and data collection, and streamlining of tax audits;
- in the part of control of corruption in the state apparatus: Romania, for example, implemented a scheme for mandatory declaration of all accumulated assets by all top officials. The declarations are made public and accessible on the Internet. The format of these declarations is the most detailed and comprehensive among all the European countries. It is planned to create a special government body to audit the declarations;
- in the part of judicial reform some measures were adopted that are designed to increase the independence of the courts of justice, alongside with some steps aimed at increasing the accountability of judges. In particular, some measures were implemented in order to make more transparent the procedure of appointing judges; the procedure of random appointment of a judge to consider a specific case and the publication in full of court decisions was introduced; the mechanisms for mutual assessment of judges were strengthened, as well as the mechanisms for considering submitted complaints. In many countries, mandatory examinations for judges were introduced in order to raise their overall competence level. Among the measures designed to improve the performance of courts of justice, the decisions to create specialized courts of justice are noteworthy, as well as the alterations in some procedures which reduced opportunities for the parties involved to delay court proceedings, relieved judges from performing some extrajudicial functions and transferred these responsibilities to other parts of the legal system; and the computerization of courts of justice which improved access to information and resulted in its more efficient utilization;
- in the part of boosting the demand for reforming, many countries – including, for example, Slovakia – adopted some radical laws on freedom of information, which

expanded the opportunities for non-governmental organizations to demand higher transparency and accountability on the part of government bodies;

- in the part of creating an adequate political environment for reforming, the available experience has demonstrated that, in the medium and long-term perspective, higher competition in political and economic life is conducive to greater transparency and accountability of the government, thus bringing down the level of corruption and improving the majority of other institutional indices;
- in the part of actual reform implementation much attention was paid to monitoring this process and comparing the performance level of the existing systems with the common European standards, and to public analysis of the achieved results.

### *Russia's accession to the OECD as an incentive for further reforms*

As has been said earlier, the institutional development of the new EU members in the period preceding their accession to the European Union was very successful. The greatest success was achieved in the modernization of national legislative and regulatory regimes and in their conformity with the European norms and regulations. At the same time, the administrative opportunities of the state bodies of these countries for administrative management, applying modern regulation methods and efficient participation in international cooperation were made much broader.

It appears quite probable that, in the Russian situation, the forthcoming negotiations concerning this country's entry in the Organization for Economic Cooperation and Development (OECD) can become, given some interest on the Russian government, a more or less similar catalyst for institutional transformations. Of course, it would be absurd to draw a strict parallel with an accession to the EU, because EU membership implies a much broader set of institutional requirements to the potential candidates, and besides, the EU has at its disposal a much better developed arsenal of sanctions to be applied for failure to comply with the general rules. Nevertheless, the accession to the OECD offers a window of opportunity for developing a program of institutional reforms in Russia, thus approximating Russia's legislation and practice of administrative regulation with their international counterparts and providing a basis for restructuring the operation of key Russian institutions in accordance with best international practice.

### **Some conclusions concerning the nature of the existing institutional lag<sup>22</sup>**

1. Russia is rather far behind the OECD countries by the indices describing the quality of its main market and state institutions. Moreover, in recent years the institutional progress in Russia has become noticeably slower. The presence of this lag increases the risks of a slowdown in the rate of production growth and stagnation in the sphere of commodity exports other than raw materials in the medium term. The weakness of basic institutions can be felt, first of all, in decreasing incentives for all types of investments (and especially in spheres other than the extracting industries and the consumer-oriented sector), in a slower rate of emergence of new enterprises and, on the whole, in a declining interest of economic agents in improving their performance level and boosting their innovative activity.

2. The existence of a gap between the high rate of economic growth in recent years, the dramatically increased average level of per capita revenue and the relatively low values displayed by the key institutional indices made it possible to speak of the emergence of a significant institutional lag in Russia. The asymmetry in the dynamics of economic, institutional and political factors that determined the development of Russia's economy over a number of years was hidden behind other indices that were pointing to economic growth, a favorable situation on the raw materials markets, stability of state finance (budget surplus, the increasing size of the Stabilization Fund and the gold and foreign currency reserves), and the

extraordinarily high yields on the Russian stock market. The differently vectored dynamics of Russia's investment and institutional ratings is indicative of the fact that in the 2000s the negative effect on the development of the 'state' factor was coupled with the gradually increasing positive effect of 'purely market' factors.. Growth of state interference in the economy restricts the role of the private sector and the market structures proper.

3. In the 2000s there occurred *no expansion of the potential social base* for an accelerated formation of efficient economic institutions on the basis of traditional political processes (that is, through elections and political representation). On the contrary, those mechanisms that as early as the 1990s proved to be an obstacle to growth of demand for efficient economic institutions are still active today, in a somewhat modified form. If prior to the early 2000s (however conventional this terminology might be) there existed a model of 'oligarchic capitalism', at present the most typically applied term is '*state capitalism*' in its Russian version which provides a framework for some powerful interests aimed at preserving the existing *status quo*. At the same time, the lack of any consistent actions on the part of the State aimed at improving the entrepreneurial environment results in a situation when this particular model of capitalism become inevitably fraught with the risk of loss of economic dynamism. For an efficient functioning of the principal sources of innovations under market conditions (competition and entry of new companies onto the market), the State needs to apply constant efforts to strengthen the existing market institutions.

4. Throughout the 2000 – 2007 period, the progress achieved in the development of basic market institutions (such as protection of ownership and shareholder rights, the formation of the market for land and immovable property, state property management, bankruptcy procedures and protection of creditor rights, etc.) proved to be insufficient. Our analysis has provided some grounds for the assumption that the legal and regulatory backing for the development of economic institutions is inadequate.

5. *In the long run*, the problem presented by differently vectored economic and institutional development factors in the Russian economy may acquire critical importance, primarily in the context of the roles played by various institutions in maintaining stable economic dynamics – especially if some consideration is given to the proportional scale of the 'situational' component among the sources of current growth of economic indices and budget revenue. If no reforming is done in the forthcoming period, the economic losses resulting from the inefficiency of the existing institutions, will be growing at an accelerated rate.

6. The analysis of the successful acceleration of institutional transformations in the countries of Eastern and Central Europe in the 1990s has provided convincing evidence that it is indeed possible to implement within a period from eight to ten years a large-scale program of institutional improvements and thus to largely eliminate the institutional lag which can become a powerful obstacle in the way of a country's long-term development. It seems feasible to take advantage of the forthcoming negotiations on Russia's entry in the OECD so as to prepare the much-needed program for accelerating institutional reforms, making the institutional environment in this country more compatible with the standards typical of Russia's partners in trade, and increasing opportunities for import of efficient institutions.

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ANNEX

Country codes applied in graphs

Code	Country	Code	Country
ABW	Aruba	LBN	Lebanon
ADO	Andorra	LBR	Liberia
AFG	Afghanistan	LBY	Libya
AGO	Angola	LCA	Saint Lucia
ALB	Albania	LIE	Liechtenstein
ANT	Netherlands Antilles	LKA	Sri Lanka
ARE	UAE	LSO	Lesotho
ARG	Argentina	LTU	Lithuania
ARM	Armenia	LUX	Luxemburg
ASM	American Samoa	LVA	Latvia
ATG	Antigua and Barbuda	MAC	Macao
AUS	Australia	MAR	Morocco
AUT	Austria	MCO	Monaco
AZE	Azerbaijan	MDA	Moldova
BDI	Burundi	MDG	Madagascar
BEL	Belgium	MDV	Maldives
BEN	Benin	MEX	Mexico
BFA	Burkina Faso	MHL	Marshall Islands
BGD	Bangladesh	MKD	Macedonia
BGR	Bulgaria	MLI	Mali
BHR	Bahrain	MLT	Malta
BHS	Bahamas	MMR	Myanmar
BIH	Bosnia and Herzegovina	MNE	Montenegro
BLR	Belarus	MNG	Mongolia
BLZ	Belize	MNP	North Mariana Islands
BMU	Bermudas	MOZ	Mozambique
BOL	Bolivia	MRT	Mauritania
BRA	Brazil	MUS	Mauritius
BRB	Barbados	MWI	Malawi
BRN	Brunei	MYS	Malaysia
BTN	Bhutan	NAM	Namibia
BWA	Botswana	NCL	New Caledonia
CAF	Central African Republic	NER	Niger
CAN	Canada	NGA	Nigeria
CHE	Switzerland	NIC	Nicaragua
CHL	Chile	NLD	The Netherlands
CHN	China	NOR	Norway
CIV	Cote d'Ivoire	NPL	Nepal
CMR	Cameroon	NZL	New Zealand
COG	Congo Dem. Rep.	OMN	Oman

COL	Columbia	PAK	Pakistan
COM	The Comoro Islands	PAN	Panama
CPV	Cape Verde	PER	Peru
CRI	Costa Rica	PHL	Philippines
CUB	Cuba	PLW	Palau
CYM	Cayman Islands	PNG	Papua – New Guinea
CYP	Cyprus	POL	Poland
CZE	Czechia	PRI	Puerto Rico
DEU	Germany	PRK	KPDR
DJI	Djibouti	PRT	Portugal
DMA	Dominica	PRY	Paraguay
DNK	Denmark	QAT	Qatar
DOM	Dominican Republic	ROM	Romania
DZA	Algeria	RUS	Russia
ECU	Ecuador	RWA	Rwanda
EGY	Egypt	SAU	Saudi Arabia
ERI	Eritrea	SDN	Sudan
ESP	Spain	SEN	Senegal
EST	Estonia	SGP	Singapore
ETH	Ethiopia	SLB	Solomon Islands
FIN	Finland	SLE	Sierra Leone
FJI	Fiji	SLV	El Salvador
FRA	France	SMR	San Marino
FSM	Federated States of Micronesia	SOM	Somalia
GAB	Gabon	SRB	Serbia
GBR	UK	STP	Sao Thome and Principe
GEO	Georgia	SUR	Surinam
GHA	Ghana	SVK	Slovakia
GIN	Guinea	SVN	Slovenia
GMB	Gambia	SWE	Sweden
GNB	Guinea-Bissau	SWZ	Swaziland
GNQ	Equatorial Guinea	SYC	Seychelles
GRC	Greece	SYR	Syria
GRD	Grenada	TCD	Chad
GTM	Guatemala	TGO	Togo
GUM	Guam	THA	Thailand
GUY	Guiana	TJK	Tajikistan
HKG	Hong Kong	TKM	Turkmenistan
HND	Honduras	TMP	Timor-Leste
HRV	Croatia	TON	Tonga
HTI	Haiti	TTO	Trinidad and Tobago,
HUN	Hungary	TUN	Tunisia
IDN	Indonesia	TUR	Turkey
IND	India	TZA	Tanzania
IRL	Ireland	UGA	Uganda
IRN	Iran	UKR	Ukraine

IRQ	Iraq	URY	Uruguay
ISL	Iceland	USA	USA
ISR	Israel	UZB	Uzbekistan
ITA	Italy	VCT	Saint Vincent and the Grenadines
JAM	Jamaica	VEN	Venezuela
JOR	Jordan	VIR	Virgin Islands
JPN	Japan	VNM	Vietnam
KAZ	Kazakhstan	VUT	Vanuatu
KEN	Kenya	WBG	Sector Gaza
KGZ	Kyrgyzstan	WSM	Samoa
KHM	Cambodia	YEM	Yemen
KIR	Kiribati	YUG	Serbia
KNA	Saint Kitts and Nevis	ZAF	SAR
KOR	Korea	ZAR	Dem. Rep. of Congo
KWT	Kuwait	ZMB	Zambia
LAO	Laos		