

Russia among Resource Abundant Countries: Institutional Analysis in the Light of Natural Resource Curse Phenomenon

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Abstract: The present study is devoted to the analysis of the Russian institutional system's quality and its connection with resource abundance of the country. The key question is whether natural resources are blessing or cursing for economic growth and institutional development in Russia. On the basis of the most authoritative indexes of institutional development we analyzed the dynamics of the Russian institutions evolution, made a series of comparisons between Russia and a number of resource abundant countries regarding to their institutional quality and associated with it economic success. The aim was to identify the position of Russia among resource abundant countries with respect to the quality of institutions and its influence on economic growth in the light of the puzzling phenomenon of Natural Resource Curse (NRC). The comparison was done among the following countries: Venezuela, Russia, Mexico, Australia, Canada and Norway. The analysis, being based on the results of econometric models of several we employs in turn index-verification of NRC institutional interpretation. The results show that Russian institutions are still far from production friendly ones what does'nt contribute to effective use of its natural resources and eventually to a robust economic progress; Russia remains under embezzlement mode.

Key words: Russia, institutional quality, natural resources, economic growth, development

INTRODUCTION

Works devoted to an institutional analysis take a considerable place in economic literature recent years. From its view point the relationships between society and economy are determined by a kit of institutional restrictions which in turn determine the mode of functioning of economic systems. Institutions are the key to understanding relationships between society and economy and influence of these relationships on economic growth (or stagnation and downswing). Ultimately, institutions serve as fundamental factors of economic systems functioning in the long-term perspective (North, 1994).

Institutional analysis implies study of institutions (rules) that form, structure and regulate the development of a system of socio-economic interactions as a result of endogenous and exogenous factors influence.

Today nobody casts doubt on the existence of robust and statistically significant correlation between quality of national institutions and level of economic growth. The main attention now is aimed on clarifying the nature of the conforming cause-effect relationships or on solving of the so called problem of endogeneity, namely

are institutions the prime cause of a growth or theirs development and influence are the result of some others underlying factors? (Freinkman *et al.*, 2009).

Classical and neoclassical economic theories as factors of growth traditionally pick out investments in fixed and human capital as well as development of knowledge and innovations. Whilst institutional approach considers investments as a consequence of formation, fixation (stabilization) and efficiency increase of institutions. Investments here are actually one of the transmission mechanisms linking institutional factors and economic growth. The theory of economic growth refers the factors of growth either to a group of proximate or to a group of fundamental or deep ones (Rodrik, 2005). The neoclassical determinants of growth are usually referred to proximate ones, they are: labor, capital, land as well as productivity, caused not just by a technical efficiency of a production but also the rational allocation of resources. To the group of fundamental factors among others the quality of national institutions to wit effectiveness of the protection of property and contract rights, a system of enforcement, the quality and independence of the judiciary, bureaucracy quality and depth of financial markets. The research by Rodrik *et al.* (2004) is extremely

authoritative on this topic. In cross-country regressions built on long time intervals it is shown that factor of institutional quality, primarily the quality of property rights protection and the legal system much better explains the differences in long-term growth rates than other fundamental factors. Herewith, it is important to emphasize that institutional factors are essential primarily for explaining the long-term growth rates, i.e., cross-country differences in the current levels of per capita income. Attempts to explain the differences in growth rates for short intervals using institutional variables give results which are statistically less significant and less stable (Hausmann *et al.*, 2005). Different mechanisms of interaction among fundamental factors in the process of economic growth are also itemized in the following works: La Porta *et al.* (1999) and Glaeser *et al.* (2004) investigated differences in economic growth and revealed their dependence on the quality of human capital and the degree of development of financial system; in an empirical research by Barro (1998), the level of property rights protection and the quality of legal order act as key determinants of economic development; Acemoglu and Johnson (2005) analyzed the influence of legal institutions; Beck *et al.* (2001) added that type of legal system influences on economic growth not directly but through the degree of financial markets development, actually proving that the role of the services provided by the financial system is critical to the successful implementation of investments and sustainable economic growth; Beck and Laeven (2005) had studied the dynamics of institutional development in transition economies determined that this dynamics caused by the presence of natural resources and singularities of historical experience.

Developing economies and economies in transition are generously endowed with natural resources. While the potential of this wealth in terms of poverty reduction and economic growth is very big, the hindering to its realization temptation of corruption and abuse is no less high, especially when the source of wealth is a crude oil (Freinkman *et al.*, 2009). It would appear oil wealth which these countries possess should significantly contribute to their development. But in reality such countries often show weak growth compared to comparable countries without oil reserves have lower values of human development indicators and a higher level of social and political disorders and even armed conflicts.

Sachs and Warner (1999) in the study "Natural resource abundance and economic growth on the bases of a large cross-country study (econometric analysis) showed that high level of natural resource endowments is closely related to the slow pace of economic growth. This

effect is called Natural Resource Curse (NRC)" or paradox of plenty. However, the NRC concept itself has been subjected to serious doubt recently. Study by Bruunschweiler (2008) for the period 1970-2000 has revealed positive influence of natural resource endowments level on economic growth tempo. These relatively new data show that initial treatment of negative relation between export of raw materials and rate of economic development, known as the "resource curse" was largely misleading. More accurately we would have talking about the "curse of underdeveloped economy". Indeed significant volumes of raw material exports indicate that the corresponding national economy is simply unable to transform these raw materials into finished products. However, these consequences are not strictly determined but appear only under certain conditions.

It is found that economies with abundant natural resources and at the same time better institutional quality and governance such as strong democratic accountability, high law and order, lower corruption or higher integration among government institutions are evident to have better economic growth and higher human welfare (Sarmidi *et al.*, 2014). This is because superior institutional quality could be very effective in nullifying the so called NRC through avoidance of rent-seeking behavior (Auty, 2001) reducing corruption (Isham *et al.*, 2005; Robinson *et al.*, 2006), lowering the risk of violent civil conflict (Collier and Hoeffler, 2005) and accelerating efficient resource allocation (Atkinson and Hamilton, 2003; Damania and Bulte, 2003; Mehlum *et al.*, 2006). Thus, the quality of institutions is a mediating link between the level of the country's natural resources provision and a wide range of social, political and economic consequences.

In this respect, mentioned researchers raised accurate questions: How high should institutional quality be for natural resources to have a favorable effect on economic growth? At what level of institutional quality is the NRC annulled? (Resource curse: new evidence on the role of institutions) (Sarmidi *et al.*, 2014). In accordance with a Model by Mehlum *et al.* (2006) (ongoing Mehlum-Moene-Torvik Model) the influence of institutions and resources on economic welfare is not monosemantic and determined by a value of a threshold function. It was shown that an economy operates in one of two modes either production or embezzlement. Which mode an economy belongs to depends only on a value of a threshold function, precisely above or below it is regarding a certain fixed threshold which in turn depends on two parameters quality of institutions (using a terminology by Mehlum *et al.* (2006) high-quality institutions are considered as

production-friendly and opposite ones as grabber-friendly) and reserves of recourses. Later on Kartashov (2012)'s Model on the bases of Mehlum *et al.* (2006) Model econometrically tested threshold regression specifications. As a result, the empirical analysis of sample of countries upon two modes shown that final distribution is consistent with the intuitive notions about these countries. For example, such countries like USA, Canada, Norway, Australia are curse-free and enjoy economic growth due to their producer-friendly institutions with exceptionally high quality (Sarmidi *et al.*, 2014; Feld and Schneider, 2010). The estimation of Kartashov (2012) utilized preliminarily the same sample of countries which was used in researches of Mehlum *et al.* (2006) and Sachs and Warner (1999) with a purpose of eventual comparison and the analyzed period was 1970-2005. Very similar research was done by Sarmidi *et al.* (2014) where also using an innovative threshold estimation technique, the empirical results revealed that a threshold effect in relationship between natural resources and economic growth exists. Pursuant to Kartashov (2012) Russian economy till 2005 had been belonging to the embezzlement mode.

MATERIALS AND METHODS

Based on mentioned earlier the detailed examination of the Russian institutional system's quality in the subsequent period, namely over the past 10 years from 2004-2014 becomes quite interesting as well as the answer to the question whether there had been any movement towards positive change or the Russian economy is still in the embezzlement mode. However, the data will cover much longer period of time to make this study better connected with earlier research on corresponding topic. Also, in the interest is the analysis of the current state of the Russian institutional system as well as the dynamics of the key Russian institutions development with a parallel comparison obtained data with similar data of other countries for instance, Norway (as one of the leaders in the field of institutional development and a resource abundant country).

For this purpose, we will investigate development trends of the key institutions in a sample of countries on the basis of the most authoritative set of institutional development indicators.

The aim is to identify the position of Russia among resource abundant countries with regard to the quality of institutions and its influence on economic growth in the light of the puzzling phenomenon of Natural Resource Curse (NRC). The comparison will be done among the following countries: Venezuela, Russia,

Mexico, Australia, Canada and Norway. These countries were selected according to their position (from the worst to the best correspondingly) with regard to the threshold level, defined as a function of institutional quality and natural resource reserves of a country within the threshold model. This econometric model had been suggested by Mehlum *et al.* (2006) and refined later on by Kartashov (2012). The analysis, being based on the results of mentioned researchers, employs index-verification of NRC institutional interpretation. Since, institutional system is represented by four main pillars (legal institutions, regulatory institutions, institutions of economic coordination and risk-sharing and institutions of human capital development) we took one of the most recognizable indexes from each group and analyzed its dynamics for each country with parallel mutual comparison. Namely, the following indexes were used: family of WGI indexes which represents both legal and regulatory institutions and provides complex perspective on the institutional framework evaluating such areas as voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption, the World Bank indicator domestic credit to private sector (% of GDP) which reflects the performance of economic coordination and risk-sharing institutions and finally Human Development Index.

When solving the assigned tasks methods of logical, comparative, statistical analysis and synthesis were utilized. The empirical base of the study was consisted of statistical compilations, internet materials and scientific periodicals.

Distribution of the selected countries between embezzlement and production modes: Before we start consideration of institutional indices let's have a look at distribution of the selected countries between embezzlement and production modes (Fig. 1). These resource abundant countries were selected from a set of countries (that was approximately in the same composition used in the researches of Mehlum *et al.*

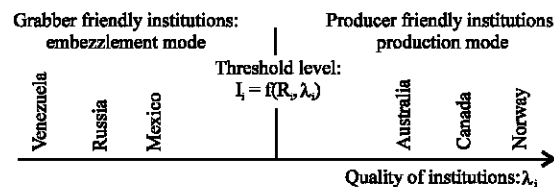


Fig. 1: Distribution of the selected countries between modes; Kartashov (2012) and Mehlum *et al.* (2006), own graphical representation

(2006), Sachs and Warner (1999) and Kartashov (2012)) according to the following criteria two countries are from the depth of the corresponding modes (Venezuela and Norway), two countries are in immediate proximity from the threshold level (Mexico and Australia) and the last ones take intermediate position within corresponding modes (Russia and Canada).

Figure 1 schematically depicts this distribution where Venezuela, Russia and Mexico belong to an embezzlement mode due to grabber friendly institutions, Australia, Canada and Norway relate to a production mode with respectively producer friendly institutions. Mehlum-Moene-Torvic Model suggested a threshold level as a function of two parameters-stock of resources and quality of institutions $I_i = f(R_i, \lambda_i)$. Later on Kartashov (2012) by means of threshold regression empirically tested findings of the Mehlum-Moene-Torvic's Model and specified the threshold level as a value of the threshold function:

$$I_i = \Pi \left[\frac{R_i (1-\lambda_i)}{\lambda_i} > d \right]$$

Where:

- R_i = Resource which an i-country possesses ($R_i > 0$)
- λ_i = Quality of institutions in i-country (λ)
- d = A threshold (this parameter was estimated on the basis of cross-sectional specification and pursuant to Hansen (1999))

According with the results of Kartashov (2012)'s estimations despite the value of the threshold function/level is not constant, the distribution of the selected countries between modes and relative to each other was practically the same, except couple of times when Mexico and Australia had changed their places with regard to the occupied mode. Thereby schematic Fig. 1 illustrates the position of the selected countries up to 2005 year. We will investigate institutional development of these countries both before 2005 (what allows to connect the analysis with others earlier researches) and after till the present day. But before that it is necessary to pay attention on some methodological aspects, namely on basic definitions, classifications, main approaches to measure the quality of institutional factors and mention the most authoritative organizations elaborating indexes of institutional development.

Institutional analysis methodology and its framework:

Institutions can be seen in a broad sense as a set of mechanisms and rules ensuring resource redistribution in the economy, attraction of new investments, work force training and forming a system of incentives to increase

the efficiency in the economy. Thus, institutions can be roughly classified into following main groups: legal institutions, regulatory institutions, institutions of economic coordination and risk-sharing and institutions of human capital development (Freinkman *et al.*, 2009). Here, the major institutional factors that can be counted on the quantitative level are: political regime (democracy), economic and political freedom, protection of property rights, the judicial system, government effectiveness, rule of law, social and political stability, social inequality, shadow economy, education system and financial system. The system also includes factors such as bureaucracy, business coalitions, civil society, perception of corruption and informational transparency in society. To measure the quality of institutional factors the following statistical indicators are used:

- Natural quantitative parameters (e.g., indicators enshrined in legislation, macro economic indicators)
- Expert estimation
- Binary variable (based for example on surveys of enterprises and households as users of public services):

$$d_i = \begin{cases} 1 & \text{if institution operates} \\ 0 & \text{otherwise} \end{cases}$$

- A proportion of agents. Herewith, one of the approaches is to consider institutional change as a process:

$$P = \frac{e^{f(x_i, z_{i,t})}}{e^{f(x_i, z_{i,t})} + 1}$$

Where:

- P = The proportion of agents who are using new institute
- x = A set of factors influencing the share, considering training

- Indices of institutional development

In this study, we mainly use the last one from the listed statistical indicators. For today, the number of regularly updated international indices and ratings exist, reflecting certain national institutional aspects including the level of investment's and business risks, the degree of economic and political freedoms, corruption level, etc. These estimates are published as by major international organizations such as for example, OECD, World Bank, UNCTAD and independent research centers and public organizations such as the fraser institute, transparency

international, the heritage foundation, freedom house and others as well as private consulting firms and rating agencies for example, AT Kearney, standard and poor's, global insight, goldman sach's.

Since, institutional system is represented by four main pillars (legal institutions, regulatory institutions, institutions of economic coordination and risk-sharing, and institutions of human capital development) we took one of the most recognizable indexes from each group and analyzed its dynamics for each country with parallel mutual comparison. Namely, the following indexes will be used: family of WGI indexes which represents both legal and regulatory institutions and provides complex perspective on the institutional framework evaluating such areas as voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption, the World Bank indicator domestic credit to private sector (% of GDP) which reflects the performance of economic coordination and risk-sharing institutions and finally human development index.

RESULTS AND DISCUSSION

Institutional quality analysis (legal and regulatory institutions): Family of Worldwide Governance Indicators (WGI), based on the researches of the World Bank Institute and the research department of the World Bank, covers six basic aspects of a state management and is reflected by the six aggregate indicators:

- Rights of citizens and public accountability (voice and accountability) reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government as well as freedom of expression, freedom of association and a free media (Based on the World Bank. Worldwide Governance indicators (online). Available on: <http://info.worldbank.org/governance/wgi/index.aspx#doc>)
- Political stability and absence of violence (political stability) reflects perceptions of the likelihood that the government will be destabilized or over thrown by unconstitutional or violent means including politically-motivated violence and terrorism (Based on the World Bank. Worldwide Governance indicators (online). Available on: <http://info.worldbank.org/governance/wgi/index.aspx#doc>)
- Government effectiveness reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation and the credibility of the

government's commitment to such policies (Based on the World Bank. Worldwide Governance indicators (online). Available on: <http://info.worldbank.org/governance/wgi/index.aspx#doc>)

- Quality of regulatory institutions (regulatory quality) reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development (Based on The World Bank. Worldwide Governance indicators (online). Available on: <http://info.worldbank.org/governance/wgi/index.aspx#doc>)
- Quality of legal institutions (rule of law) reflects perceptions of the extent to which agents have confidence in and abide by the rules of society and in particular the quality of contract enforcement, property rights, the police and the courts as well as the likelihood of crime and violence (Based on The World Bank. Worldwide Governance indicators (online). Available on: <http://info.worldbank.org/governance/wgi/index.aspx#doc>)
- Anti-corruption monitoring (control of corruption) reflects perceptions of the extent to which public power is exercised for private gain including both petty and grand forms of corruption as well as capture of the state by elites and private interests (Based on The World Bank. Worldwide Governance indicators (online). Available on: <http://info.worldbank.org/governance/wgi/index.aspx#doc>)

The aggregate of these indicators contemporaneously represents both of the mentioned earlier institutional classification groups legal institutions and regulatory institutions.

The summary analytical table upon all six aspects for the sample of resource abundant countries is presented below. Higher values of indicators correspond to a more effective system of government.

The summary analytical table reveals weak position of Russian legal and regulatory institutions, specifically values of voice and accountability and control of corruption indicators demonstrated negative dynamics with insignificant exceptions over the analyzed period. However, political stability has slightly increased. If we compare values of others Russian indicators from that group at the beginning and the end of the analyzed period we see either no or very little change. As a result with regard to legal and regulatory institutions Russia is still below the threshold level as well as the countries positions towards to each other has not changed (Fig. 2).

On the basis of the earlier shown data, namely on the latest values, we construct the radar chart

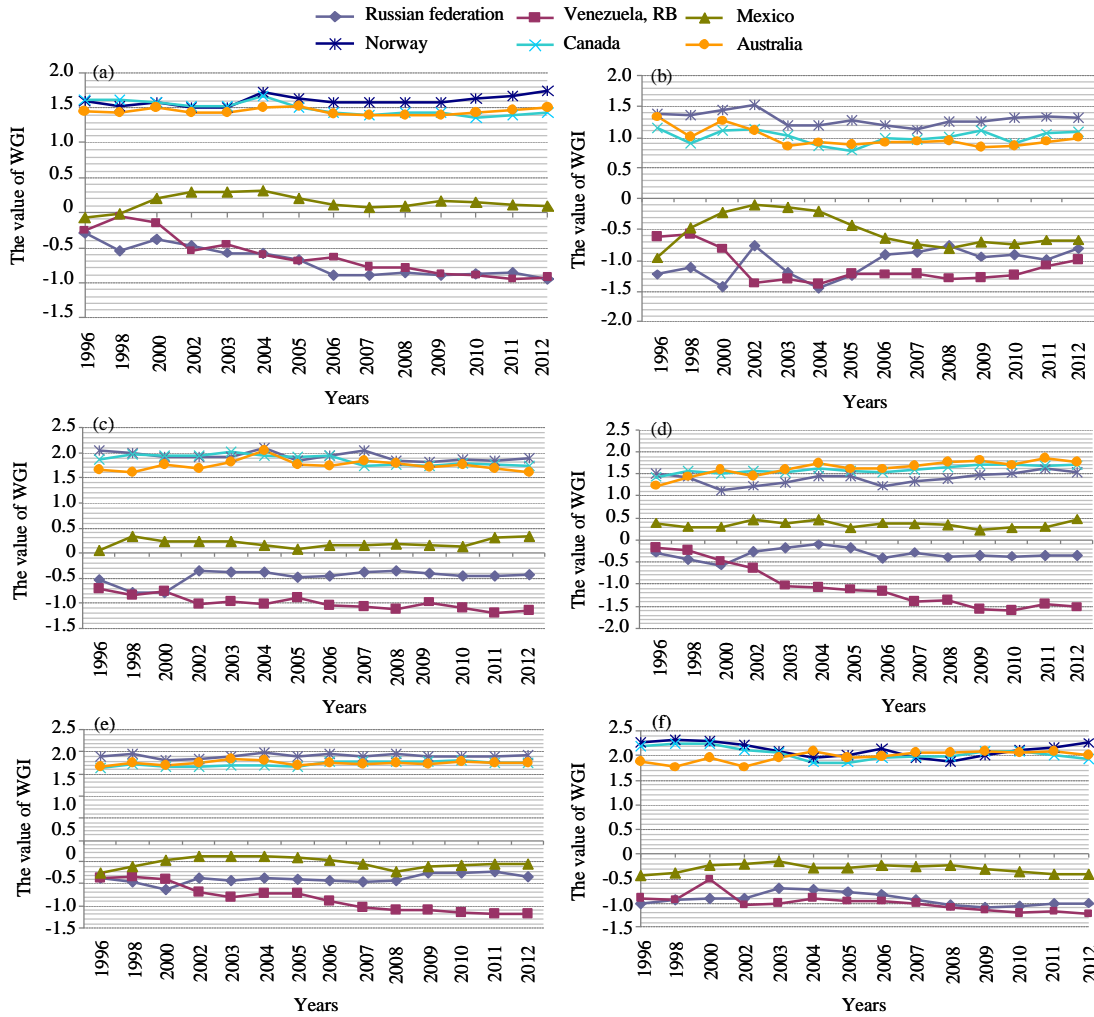


Fig. 2: Development of WGI values for a sample of resource abundant countries: a) voice and accountability; b) political stability; c) government effectiveness; d) regulatory quality; e) rule of law and f) control of corruption; researchers graphical representation based on The World Bank Group data: Worldwide Governance Indicators [online]. Available on: <http://info.worldbank.org/governance/wgi/index.aspx#home>

representing institutional quality gap (governance aspect) across selected resource abundant countries in 2012 year.

As we can see from Fig. 3 even in 2012, the latest year of the available data, Russia's values still had been lying below the threshold level which can tentatively be determined on this graph upon countries that are in immediate proximity from the threshold level, namely Mexico and Australia. In fact in order to overcome, so called NRC and enjoy economic growth owing to producer-friendly institutions Russia should pay considerable attention on improving all six sides of governance quality, especially regulatory quality, Government effectiveness, voice and accountability and control of corruption, respectively because of their

extremely low values comparing to WGI values of Mexico and Australia. Institutional quality gap among Norway, Canada and Russia according to received data is much higher. Venezuela has the worst position in a sample.

Institutional quality analysis (institutions of economic coordination and risk-sharing): One of the examples for this group is an indicator developed by the World Bank which is represented as a domestic credit to private sector (% of GDP). Domestic credit to private sector refers to financial resources provided to the private sector such as through loans, purchases of non-equity securities and trade credits and other accounts receivable that establish a claim for repayment. For some countries these claims include credit to public enterprises.

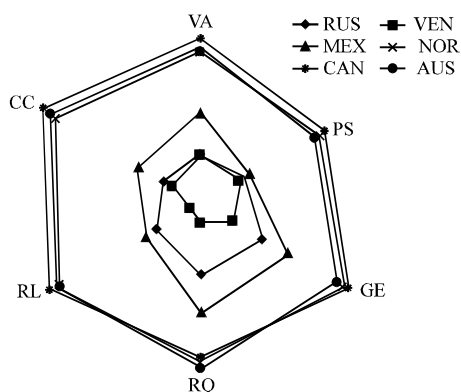


Fig. 3: Institutional quality gap across resource abundant countries in 2012: VA = Voice and Accountability; PS = Political Stability; GE = Government Effectiveness; RQ = Regulatory Quality; RL = Rule of Law; CC = Control of Corruption; researchers graphical representation on the basis of data from Fig. 2

Unfortunately not all indices values that we consider are published on a regular basis. Therefore, the analysis of some of the ratings is carried out only on the latest available data.

As we can see from Fig. 4 Russia's position among the selected countries had changed after 2000, so it moved from the last to the third from the end place leaving behind both Venezuela and Mexico. Russian values of this indicator has been showing practically stable increasing trend. However, it is still far from the values of institutionally developed leaders as Australia, Canada and Norway (the most recent data upon Norway and Canada are unfortunately, absent at the source). Since, the value of the Russian indicator at the end of the analyzed period is approximately, 2 times higher than Mexican one and 2.5 times less than the Australian one (countries that represent close values to the threshold level from both sides, below and above respectively), we can conclude that Russia at the moment is steadily moving towards countries enjoying curse-free positions as for instance Norway.

So with regard to institutions of economic coordination and risk-sharing, group of which is represented by indicator expressed as domestic credit to private sector (% of GDP), researchers came to a conclusion that in this part Russia demonstrates positive dynamics and its position towards the threshold level has all chances to be changed very soon.

Institutional quality analysis (institutions of human capital development): Quality of Institutions from that

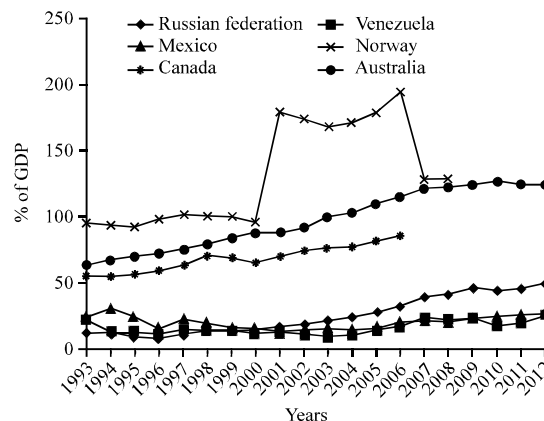


Fig. 4: Domestic credit to private sector (% of GDP) in a sample of countries: The World Bank Data: <http://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS>, researchers graphical representation

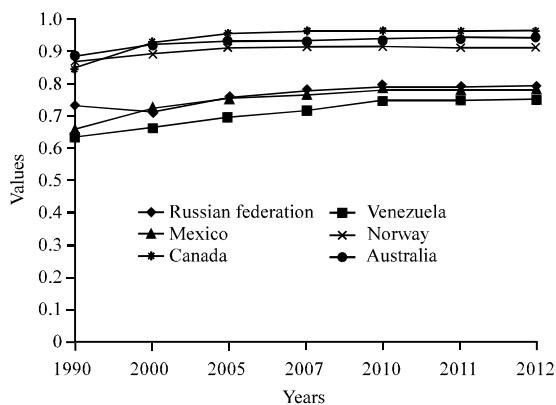


Fig. 5: Human development index values development: UN's Human Development Index trends: https://data.undp.org/dataset/Table_2-Human-Development-Index-trends/efc4-gjvq, researchers graphical representation

group can be accessed along with others by a Human Development Index (HDI) which is elaborated by UN's specialists. The HDI is a composite statistic of life expectancy, education and income indices used to rank countries into four tiers of human development (low, medium, high and very high). In the sample countries refer to a high (Russia, Venezuela, Mexico) or very high (Canada, Norway, Australia) level of human capital development.

Figure 5 representing development of HDI for each country, revealed very small change in their development and in fact all countries from a sample demonstrated a slight and almost the same in value increase over the time period from 2000-2012.

CONCLUSION

The present study addressed the problem of natural resource curse in the light of institutional interpretation. A number of researchers employing econometric models investigated this problem earlier with attempt to define a certain level of institutional development, achieving which resource abundant countries are able to overcome negative effect of so called natural resource curse and to move from an embezzlement mode with grabber-friendly institutions to a production mode with correspondingly producer-friendly institutions.

With the aim to identify the position of Russia among resource abundant countries (selected countries besides Russia are Venezuela, Mexico, Australia, Canada and Norway) regarding to the quality of institutions and its influence on economic success we analyzed the dynamics of the Russian institutions evolution and made a series of intragroup comparisons. The research was done on the basis of the most authoritative indexes of institutional development representing each of the four main pillars of institutional system (legal institutions, regulatory institutions, institutions of economic coordination and risk-sharing and institutions of human capital development), namely the following indexes have been employed: family of WGI indexes which represents both legal and regulatory institutions and provides complex perspective on the institutional framework evaluating such areas, as voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption, the World Bank indicator domestic credit to private sector (% of GDP) which reflects the performance of economic coordination and risk-sharing institutions and finally human development index.

The analytical table of intragroup institutional indexes comparison over 1996-2012 time-period reveals weak position of Russian legal and regulatory institutions, specifically values of voice and accountability and control of corruption indicators demonstrated negative dynamics with insignificant exceptions over the analyzed period. However, political stability has slightly increased. If we compare values of others Russian indicators from that group at the beginning and the end of the analyzed period we see either no or very little change. As a result with regard to legal and regulatory institutions Russia is still below the threshold level as well as the countries positions towards to each other has not changed.

Then, we constructed a radar chart for 2012, the latest year of the available data and visualize an institutional quality gap (governance aspect) across selected resource abundant countries in fact Russia's

values still had been lying below the threshold level which can tentatively be determined on this graph upon countries that are in immediate proximity from the threshold level (according to econometric models of Kartashov and Mehlum-Moene-Torvik), namely Mexico and Australia. In fact in order to overcome, so called NRC and enjoy economic growth owing to producer-friendly institutions Russia should pay considerable attention on improving all six sides of governance quality, especially regulatory quality, government effectiveness, voice and accountability and control of corruption, respectively because of theirs extremely low values comparing to WGI values of Mexico and Australia. Institutional quality gap among Norway, Canada and Russia according to received data is much higher. Venezuela has the worst position in a sample.

Institutions of human capital development represented by HDI revealed very small change in their development and in fact all countries from a sample demonstrated a slight and almost the same in value increase over the time period from 2000-2012.

The positive development can be seen only in the field of Domestic credit to private sector (% of GDP) which indicates some progress of Russia in the sphere of economic coordination and risk-sharing. Russia's position among the selected countries had changed after 2000, so it moved from the last to the 3rd from the end place leaving behind both Venezuela and Mexico. Russian values of this indicator has been showing practically stable increasing trend. However, it is still far from the values of institutionally developed leaders as Australia, Canada and Norway (the most recent data upon Norway and Canada are unfortunately, absent at the source). Since, the value of the Russian indicator at the end of the analyzed period is approximately two times higher than Mexican one and 2.5 times less than the Australian one (countries that represent close values to the threshold level from both sides below and above respectively), researchers can conclude that Russia at the moment is steadily moving towards countries enjoying curse-free positions as for instance Norway.

Overall the results show a big disproportion between the 1st group of states with producer-friendly institutions (Norway, Australia and Canada) and the 2nd group of states that are under embezzlement mode (Mexico, Russia and Venezuela). This analysis allows to conclude that Russian institutions are still far from production friendly ones what does not contribute to effective use of its natural resources and eventually to a robust economic progress, thus Russia remains under embezzlement mode. According to the results, we can conclude that the

institutional transformations conducted in Russia during liberalization reforms and its integration into the world economic activity were resulted in formalistic adoption (importing) of institutions from economically developed countries without taking into consideration informal component of any institution and adjusting them to the Russian reality. Dynamic economic growth, financial profits and reforms in some areas of the business environment go hand in hand with huge unresolved problems in entrepreneurial activity as well as increasing government intervention in market operation, especially energy sector. The results show that the institutional transformation and market liberalization in Russia were not enough deep and they were not adjusted to the Russian conditions. That's why Russia is still belongs to the embezzlement mode and there are not observed significant improvement of the situation.

It is necessary to implement the complex policy, based on the development of all competitiveness determinants (being relied not just on natural resource endowments) in the development of the Russian economy what will allow Russia to participate in the world economic activity more successfully.

REFERENCES

- Acemoglu, D. and S. Johnson, 2005. Unbundling institutions. *J. Polit. Econ.*, 113: 949-995.
- Atkinson, G. and K. Hamilton, 2003. Savings, growth and the resource curse hypothesis. *World Dev.*, 31: 1793-1807.
- Auty, R.M., 2001. The political economy of resource-driven growth. *Eur. Econ. Rev.*, 45: 839-846.
- Barro, R.J., 1998. *Determinants of Economic Growth: A Cross-country Empirical Study*. 1st Edn., MIT Press, Cambridge, MA., USA., ISBN-13: 9780262522540, Pages: 145.
- Beck, T. and L. Laeven, 2005. Institution building and growth in transition economies. Research Working Paper No. WPS 3657, World Bank, Washington, DC., USA.
- Beck, T., A. Demirguc-Kunt and R. Levine, 2001. Law, politics and finance. Policy Research Working Paper No. WPS 2585, World Bank, Washington, DC., USA., pp: 1-78.
- Bruunschweiler, N., 2008. Cursing the blessing? Natural resource abundance, institutions and economic growth. *World Dev.*, 36: 399-419.
- Collier, P. and A. Hoeffler, 2005. Resource rents, governance and conflict. *J. Conflict Resolut.*, 45: 625-633.
- Damania, R. and E. Bulte, 2003. Resources for sale: Corruption, democracy and the natural resource curse. <http://documents.apec.umn.edu/ebulteenvsp05.pdf>.
- Feld, L.P. and F. Schneider, 2010. Survey on the shadow economy and undeclared earnings in OECD countries. *German Econ. Rev.*, 11: 109-149.
- Freinkman, L., V. Dashkeev and M. Muftiahetdinova, 2009. Analysis of institutional dynamics in the economies in transition. Research Paper Series. <https://ideas.repec.org/a/gai/rpaper/89.html>.
- Glaeser, E.L., R. La Porta, F. Lopez-de-Silanes and A. Shleifer, 2004. Do institutions cause growth? NBER Working Paper No. 10568. <http://www.nber.org/papers/w10568>.
- Hansen, B.E., 1999. Threshold effects in non-dynamic panels: Estimation, testing and inference. *J. Econ.*, 93: 345-368.
- Hausmann, R., L. Pritchett and D. Rodrik, 2005. Growth accelerations. *J. Econ. Growth*, 10: 303-329.
- Isham, J., M. Woolcock, L. Pritchett and G. Busby, 2005. The varieties of resource experience: Natural resource export structures and the political economy of economic growth. *World Bank Econ. Rev.*, 19: 141-174.
- Kartashov, G., 2012. Economic growth and institutional quality in resource oriented countries. *Quantile*, 2: 141-157.
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny, 1999. The quality of government. *J. Law Econ. Org.*, 15: 222-279.
- Mehlum, H., K. Moene and R. Torvik, 2006. Institutions and the resource curse. *Econ. J.*, 116: 1-20.
- North, D.C., 1994. Institutional change: A framework of analysis. Working Paper, Economic History, pp: 1-12.
- Robinson, J.A., R. Torvik and T. Verdier, 2006. Political foundations of the resource curse. *J. Dev. Econ.*, 79: 447-468.
- Rodrik, D., 2005. Growth Strategies. In: *Handbook of Economic Growth*, Aghion, P. and S. Durlauf (Eds.). 1st Edn., Elsevier, USA., pp: 967-1014.
- Rodrik, D., A. Subramanian and F. Trebbi, 2004. Institutions rule: The primacy of institutions over geography and integration in economic development. *J. Econ. Growth*, 9: 131-165.
- Sachs, J.D. and A.M. Warner, 1999. The big rush, natural resource booms and growth. *J. Dev. Econ.*, 59: 43-76.
- Sarmidi, T., S.H. Law and Y. Jafari, 2014. Resource curse: New evidence on the role of institutions. *Int. Econ. J.*, 28: 191-206.