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## INTERNATIONAL MIGRATION AS A FACTOR OF ECONOMIC GROWTH UNDER GLOBALIZING

*This paper analyzes the role of natural, financial and labor resources for ensuring the economic growth of contemporary states. The relationships between the production factors stimulating the countries' economy development and the dynamics of the current business processes are determined.*

*Keywords: international migration; labor productivity; economy efficiency of migration; migration policy.*

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## МІЖНАРОДНА МІГРАЦІЯ ЯК ЧИННИК ЕКОНОМІЧНОГО РОСТУ В УМОВАХ ГЛОБАЛІЗАЦІЇ

*У статті проаналізовано роль природних, фінансових та трудових ресурсів у забезпеченні економічного зростання сучасних країн. Також досліджено залежність між стимулюючими економічне зростання факторами виробництва та динамікою господарських процесів в сучасних умовах.*

*Ключові слова: міжнародна міграція; продуктивність праці; економічна ефективність міжнародної міграції; міграційна політика.*

*Табл. 5. Літ. 14.*

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## МЕЖДУНАРОДНАЯ МИГРАЦИЯ КАК ФАКТОР ЭКОНОМИЧЕСКОГО РОСТА В УСЛОВИЯХ ГЛОБАЛИЗАЦИИ

*В статье проанализирована роль природных, финансовых и трудовых ресурсов в обеспечении экономического роста современных государств. Исследована зависимость между стимулирующими экономический рост производственными факторами и динамикой хозяйственных процессов в современных условиях.*

*Ключевые слова: международная миграция; производительность труда; экономическая эффективность международной миграции; миграционная политика.*

**Introduction.** Factors of national economy development within the frames of complex global economic system, as well as conditions for long-term economic progress even in turbulent market environment have always been the key areas of scientific research (Nureev, 2008; Day, 1994; Hicks, 1992; Keynes, 1936; Kondratieff, 1928). Today, economic growth is the central issue of macroeconomic policies for all nations and states.

Most of the existing approaches (Keynes, 1936; Kuznets, 1968; Marx, 1987) Tobin, 1992) identify several factors of economic growth which are related to natural resources, finance, labor and technological capabilities of a country. In this study we evaluate the a role of each factor (natural resources, finance and labor) in providing economic growth of contemporary countries during 2004–2012.

It should be noted that the proposed study is not leveling the value of the factor of innovative and technological development in economic growth (Acemoglu, 1998; Harrod, 1973). In the limited frameworks of this study we considered the factor of innovativeness of national economic system in conjunction with the national labor potential.

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The purpose of this study is to determine (based on the analysis of countries' macroeconomic indicators) the importance of three factors (natural resources, human and financial resources) to ensure the dynamic economic growth of contemporary states in a rather short term (2004–2012).

In connection with this purpose the following research objectives were set:

- to analyze the impact of natural resource potential on countries' economic growth;
- to define the role of financial resources in ensuring economic growth;
- to characterize the importance of countries' labor potential in the world economic progress;
- to track the dynamics of factors of economic growth in contemporary states for the last 8 years (2004 to 2012);
- to test the effect of "diminishing utility" for the 3 factors of economic growth (natural resources, finance and labor);
- to correlate the dynamics of economic growth in the world with the dynamics of economic efficiency of using natural, financial and labor factors in national economic systems.

To conduct the study we used the secondary data – statistical data of the World Bank (2004–2012) available on its official website ([www.worldbank.org](http://www.worldbank.org)).

For evaluation of the natural resources' role in providing the countries' economic growth we calculated the index that aggregates the following characteristics of a country: the estimated value of land and natural resources of a country; the share of mining in GDP; energy capacity of national economy; concentration of energy in a country; energetic efficiency of a country; country's share in the world export-import of natural resources; internal and external competitiveness of a country's mining sectors.

To assess the role of financial factors of economic growth we calculated the index which aggregates: the level of national economy capitalization, the national annual balance of payments, the capitalization level of the country's leading stock exchanges, the liquidity level of the national economic system, the level of investment in fixed assets.

Finally, for evaluation of the impact of labor factor on national economic growth we used the following macroeconomic indicators: capacity of country's labor market, labor productivity, GDP per employed person, the unemployment rate, national structure of employment.

**The main focus of the study.** The results of stimulating economic growth impact of natural resources, financial and labor factors are presented in Tables 1, 4 and 5.

Taking into account that the balanced value of each of the 3 analyzed factors in countries' economic progress should be about 33%, we can note that the primary role of natural resources in economic progress is being played in rapidly developing countries of the Asia-Pacific region, North Africa and Latin America.

At the same time, countries with developed economic systems, and rather modest dynamics of economic growth (EU, USA), as well as small countries which are geographically deprived of significant natural resources (Kyrgyzstan, Armenia) have a small stimulating impact of this factor.

**Table 1. Stimulate impact of natural resources on economic growth of countries (leaders and outsiders), 2012, calculated by the authors**

No	Leaders	Index of stimulating impact of natural resources <sup>1)</sup>	No	Outsiders	Index of stimulating impact of natural resources
1	Philippines	82.83	63	Latvia	22.8
2	Peru	77.28	64	Kazakhstan	22.53
3	Colombia	76.5	65	Finland	21.34
4	India	75.83	66	Canada	21.13
5	Morocco	73.22	67	Saudi Arabia	20.92
6	El Salvador	73.09	68	Australia	19.86
7	Sri Lanka	72.51	69	Norway	18.32
8	Thailand	67.95	70	Kyrgyz Republic	12.27
9	Panama	67.14	71	Armenia	9.78
10	Montenegro	63.86	72	Iceland	9.48
				<b>Average Index</b>	23.1

<sup>1)</sup> Maximal index (100%) means that a country is developing only due to own natural resource potential.

In order to test the hypothesis of diminishing economic efficiency of natural resources for economic growth, we made a comparative analysis of countries with largest and smallest (among the analyzed countries) territories (land is one of the most important natural resources) (Table 2).

**Table 2. Comparison of natural resources' stimulating impact on the biggest and smallest countries of the world<sup>1)</sup>, 2012, calculated by the authors**

Index of stimulating impact of natural resources	TOP-15 countries with smallest territories		TOP-15 countries with biggest territories	Index of stimulating impact of natural resources
67.14	Panama	1	Peru	77.28
30.46	Ghana	2	Colombia	76.5
33.52	Singapore	3	India	75.83
33.24	Denmark	4	Indonesia	62.4
72.51	Sri Lanka	5	Brazil	58.71
31.75	Netherlands	6	Mexico	57.62
24.66	Slovak Republic	7	China	53.36
63.86	Montenegro	8	Bolivia	52.72
24.61	Belgium	9	South Africa	43.15
73.09	El Salvador	10	Russian Federation	31.2
42.95	Average			46.5

<sup>1)</sup> Among 72 analyzed countries.

The results of comparative analysis show the stimulating role of natural resources in ensuring countries' economic growth is not reducing together with the growth of their natural resource potential. However, the homogeneity of this group is very low.

Only testing the correlation between stimulating impact of natural resource potential and the level of countries' economic development (GDP per capita) confirms that the role of natural resources in economic growth of developed countries is significantly lower than in developing ones (Table 3).

Table 3 shows that countries with the lowest GDP per capita remain having an extremely high role of natural resources in ensuring the economic growth. On the one hand, this can be explained by simple lack of other sources for economic progress (for example, financial resources or skilled labor) in the poorest countries. On the other,

this fact proves the urgent need to find new, more efficient sources for economic growth in the poorest countries, deprived of own natural resources (e.g., Jordan and Kyrgyzstan), that will be able to guarantee long-term and responsible strategy of national economic progress.

**Table 3. Comparison of the natural resource factor's impact on economic growth of 10 richest and 10 poorest countries<sup>1)</sup>, 2012, calculated by the authors**

Index of stimulating impact of natural resources	TOP-10 Richest economies		TOP-10 Poorest economies	Index of stimulating impact of natural resources
9.48	Iceland	1	Kyrgyz Republic	12.27
9.48	Norway	2	Paraguay	25.47
9.78	Australia	3	Ghana	30.46
12.27	Canada	4	Zambia	35.04
18.32	Finland	5	Jordan	52.14
19.86	United States	6	Pakistan	52.69
20.92	Belgium	7	Bolivia	52.72
21.13	Sweden	8	Egypt	53.8
21.34	France	9	Bangladesh	58.21
22.53	Netherlands	10	Vietnam	58.35
19.012	Average			53.4

<sup>1)</sup> By number of GDP per capita, among 72 considered countries.

The values of financial resources (capital saturation) impact on countries' economic growth are shown in Table 4.

**Table 4. Impact of financial factor on the stimulation of economic growth of contemporary countries (leaders and outsiders), 2012, calculated by the authors**

No	Leading countries	Index of stimulating impact of financial factor <sup>1)</sup>	No	Outsiders	Index of stimulating impact of financial factor
1	Uruguay	92.47	63	Chile	4
2	Armenia	87.58	64	Netherlands	3.46
3	Kyrgyz Republic	86.19	65	Norway	3.24
4	Paraguay	69.07	66	Denmark	3.14
5	Ghana	64.1	67	Australia	2.76
6	Georgia	61.96	68	Canada	2.73
7	Latvia	59.26	69	Sweden	2.45
8	Macedonia, FYR	59.08	70	United States	2.32
9	Ukraine	57.84	71	United Kingdom	2.23
10	Zambia	57.58	72	Singapore	1.77
				<b>Average</b>	19

<sup>1)</sup> Maximal index – 100% – means that country is developing only due to own financial potential.

The data in Table 4 shows:

- the highest role of financial factor in economic growth of developing countries, both with huge natural resource potential (Ukraine, Venezuela, Kazakhstan) or without it (Uruguay, Armenia, Kyrgyzstan);
- high inverse correlation between the value of stimulation impact of financial potential and capital's saturation of the countries. It is noticeable that the countries with high financial saturation have an extremely low capital's impact on their economic growth;

- despite the extremely high demand for capital in developing countries, within all the analyzed countries the average stimulating impact of financial factor is much lower than the stimulating impact of natural resources. This can be explained by high mobility of capital and by high concentration of capital in 3 global centers of capitalism with maintenance of extreme needs for capital in many developing countries (de Hass, 2009; Ropke, no data).

Table 5 shows the performance of a stimulating effect of the labor factor. It shows the highest stimulating role of the labor factor mainly in developed countries of the West with high labor productivity and innovative, high technological structure of national economies, contributing to further growth of labor efficiency.

**Table 5. Impact of the labor factor on economic growth of the countries (leaders and outsiders), 2012, calculated by the authors**

No	Leading countries	Index of stimulating impact of labor potential <sup>1)</sup>	No	Outsiders	Index of stimulating impact of labor potential
1	Norway	78.44	63	Zambia	7.38
2	Australia	77.39	64	Pakistan	7.36
3	Canada	76.14	65	Georgia	7.1
4	Finland	73.93	66	Vietnam	5.7
5	United States	73.39	67	Paraguay	5.46
6	Sweden	72.71	68	Ghana	5.44
7	Iceland	72.27	69	Armenia	2.63
8	Saudi Arabia	71.94	70	Uruguay	2.46
9	Belgium	70.95	71	Bangladesh	2.39
10	France	65.63	72	Kyrgyz Republic	1.54
				<b>Average index</b>	22.4

<sup>1)</sup> Maximal index – 100% – means that country is developing only due to own labor potential.

At the same time, economically underdeveloped countries, including the agrarian states of Africa, Asia and Latin America, are growing not due to their labor force potential.

The analysis of macroeconomic indicators of the contemporary states allows making the following **conclusions**.

Extremely high positive correlation (0.88) between stimulating role of labor factor and GDP per capita. At the same time there are almost identical negative correlations between the stimulating role of natural resources and financial factors with GDP per capita in the countries (-0.47 and -0.49 respectively).

This statistical finding directly confirms the important economic transformation – economic growth of a country has been increasingly provided not by natural and financial resources (including the borrowed ones) but by productivity and quality of labor force.

Allowing the possibility of feedback (reducing the role of high-skilled labor in economic growth determines the simplification of national economy and its further impoverishment) we come to an extremely important finding for the countries that are actively attracting low-skilled labor (including Russia, UAE, and Thailand). Qualitative economic progress of a country due to involvement of unskilled workers is impossible in the long term! With the growth in the number of arriving migrants national economic progress continues to be provided only by financial and natural resources of these countries. Under the conditions of rapidly decreasing effectiveness



of capital, as well as limited natural resources potential of a country, this strategy has a dead end, is not enable to change country's positioning in the structure of international labor division, can't guarantee the discovery and development of new resources for economic growth.

Taking into account the specifics of macroeconomic indicators of the countries in the global avant-garde, a negative correlation between stimulating role of the labor factor and dynamics of economic growth of states (-0.42) seems to be logical. It can be concluded that states are growing the fastest due to their natural resource potential (high economic dynamics is traditionally peculiar for developing countries). While the importance of the labor factor is more typical for the countries with low dynamics of economic progress (usually the developed ones).

Finally, the analyzed correlation between the indicators of stimulating roles of these 3 factors for economic development and the indices of international migration in countries allow us determine that the maximum positive correlation is between the stimulating role of the labor factor and the dynamics of international migration (0.51). These results suggest that countries are developing mostly due to natural or financial resources and now they practically do not attract foreign workers, or even supply workers at the global labor market. At the same time, countries with high labor productivity, with a great stimulating effect of labor on their economic growth are the main global recipients of migrants.

This result leads us to determination of key problems of the contemporary world labor market functioning.

Global migrants recipients traditionally have a limited capacity for own economic growth (often dynamics of their economic growth is slower than the dynamics of migration flows' increase). Under these conditions, the national systems of these countries are required to increase labor productivity as the most important factor and stimulator of economic growth (as it was proved the stimulating effect of natural resources and financial potentials in economic growth in these countries is insignificant).

In this relation, economic success of the above countries will depend on two important conditions:

- The effectiveness of measures to ensure the influx of highly skilled professionals capable to positively impact the growth of labor productivity in a country later (for example, "carriers" of education, skills, abilities, technologies etc.).
- The effectiveness of tools to ensure greater concentration of local population for increasing their educational and professional levels (with further application of these skills in productive activities) by providing unskilled jobs to foreign migrants.

The presence of two directions in national migration policy of contemporary developed countries allows the international migration of both high-skilled and unskilled workers. And this requires defining differentiated effective migration policies within the offered model from every state.

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## КНИЖКОВИЙ СВІТ



СУЧАСНА ЕКОНОМІЧНА ТА ЮРИДИЧНА ОСВІТА  
ПРЕСТИЖНИЙ ВИЩИЙ НАВЧАЛЬНИЙ ЗАКЛАД  
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У навчальному посібнику викладено основи дипломатичного і міжнародного ділового протоколу і етикету, з історією становлення української протокольної практики і протокольної служби.

Призначений для студентів, що вивчають спецкурс "Дипломатичний і міжнародний діловий протокол та етикет", а також для широкого кола осіб, яким за родом діяльності доводиться контактувати з іноземними установами, організаціями та громадянами.