# Fundamental factors of economic growth in post-socialist transformation countries

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## Abstract

**Motivation:** Economic growth is the product of many interrelated shallow and deep (fundamental) determinants. The deep ones include the geographical conditions of development, institutional conditions and the openness of the economy. Research on the impact of fundamental factors on economic growth and their importance were carried out for various groups of countries, primarily developing as well as developed ones.

**Aim:** The study continued the analysis of the fundamental factors of economic growth in selected transition countries carried out in 2010. The focus was on determining the changes that have occurred over time in the area of fundamental determinants of growth in order to perform a comparative time analysis after the next decade of functioning of these countries.

**Results:** The analysis shows that the geographical factors that formed one of the elements of the initial conditions turned out to be important for the analysed economies. Institutions are also very important, and the change in their quality in the analysed period was the smallest in the group of the poorest countries.

*Keywords: deep determinant; growth; CEE and Central Asia countries*
*JEL: O43; O40; F43*

# 1. Introduction

Since the 1930s, when the theory of growth emerged as a separate branch of the economy, the answers to the basic question about the reasons for the differences in the levels and rates of long-term economic growth between countries are being investigated. No fully satisfactory answers provided to this question, despite the proper recognition of certain growth factors, the connections between them and the mechanisms governing them, directed the attention of economists to further issues requiring clarification. Therefore, the theory of economic growth has been changing, and its evolution supported decomposition of growth into components as a part of the so-called growth accounting and a good understanding of the mechanisms of their operation. Depending on the adopted structure of the production function, the decomposition of growth pointed at the accumulation of production factors (physical capital, labour, human capital) and residual value as the fundamental sources of growth. The latter, being the remainder of the econometric regression analysis, the so-called Solow residual does not originate from accumulation of the production factors. It shows their total factor productivity (or so-called multi-factor productivity), which is identified primarily with the influence of technological progress. In fact, however, the Solow residual includes all other potential causes of growth that are not direct accumulation of production factors.

Time-related and cross-sectional studies based on these growth models confirmed their compliance with many, but not all, empirical facts and yielded unexpected results. It turned out that about one out of three parts of the growth volatility remains largely unexplained and hidden in the Solow residual (Dowrick, 1995, p. 8), that differences in inputs explain less than half of the differences between countries in terms of GDP per capita (Hulten & Isaksson, 2007; Jones & Romer, 2010, pp. 224–245), and the same savings rate does not ensure income convergence internationally (Mester, 2015).

Thus, too much of the variability of economic growth over time and its divergence between countries could not be explained by the so-called proximate determinants of growth which "are not causes of growth; they are growth" (North & Thomas, 1973, p. 2). As Fagerberg (1994, p. 1150) put it, the Solow residual has become "a measure of our ignorance about the economic growth." These models left out the so-called fundamental (deep) reasons for growth, the inclusion of which helps to explain why the pace of physical and human capital accumulation and innovation in some economies is faster than in others, leading to faster economic growth.

These observations should also be applied to the transformation processes initiated in many countries at the turn of the 1980s and 1990s. Despite the introduction of the same set of economic reforms in these countries (privatization, strict budget constraints, free pricing, freedom of economic activity), significant differences in economic results were achieved (Dragutinović-Mitrović &

Ivančev, 2010, pp. 7–32; Švejnar, 2002, pp. 3–28), which do not depend solely on the accumulation of production factors and their productivity.

The aim of the study is the analysis of the fundamental factors of growth to explain why the implementation of similar reforms in the post-socialist countries had such different effects. The research is a continuation of the analysis of the fundamental factors of economic growth in selected countries of Central and Eastern Europe and Central Asia, conducted in 2010, which introduced the market system in the early 1990s. In the analysis, as before, cross-sectional data showing economic growth and its fundamental factors were used. The obtained results allowed for a comparative, time-related analysis of the surveyed countries after the next decade of their operation. The study utilized the literature review method, desk research, deduction and statistical analysis. Further considerations are divided into three parts. The theoretical part presents the source literature on fundamental (deep) growth factors. The empirical part of the study is dedicated to the comparative analysis of the fundamental growth factors in the studied countries and the changes that have occurred in the last decade in this regard. The last part summarizes the results of the analysis carried out and presents the main conclusions.

# 2. Literature review

From the point of view of the possibility of explaining the deepening differences in the level of the long-term economic growth in different countries, one of more recent approaches is taking into account two groups of factors[1]. The accumulation of physical capital, labour, human capital and the part of the residual value indicating the total productivity of production factors related to the impact of technical progress (technology) are determinants of economic growth defined as shallow or proximate sources of growth. The second group consists of deep factors that are of fundamental importance for economic growth (Ac-

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[1] In some publications 3 groups of factors were determined (Bhupatiraju, 2014, pp. 2–3; Szirmai, 2012, pp. 5–13). Except proximate also intermediate and ultimate source of growth are listed. Intermediate include three types of factors: trends in domestic and international demand; economic policies (that uphold macroeconomic stability, trade and financial openness that promote foreign investment and minimize protectionism), social policies and technology policies and changes in the terms of trade. These factors are in turn influenced by the ultimate sources of growth include socio-political and economic institutions prevailing in the country and their governance, physical geographic conditions of the country, culture and values, social attitudes and capabilities, historical developments, historical and external shocks, demographic and epidemiological trends, long-run trends in scientific and technological knowledge and distance from the technological frontier, absorptive capacities, prevalent social structures, changes in the class structure and the relationships between social groups and political conflicts, international trade regimes, developments in the international economic and political order and international balance of power. Ultimate source of growth are synonymous with deep or fundamental causes of growth.

emoglu, 2009, p. 109; Acemoglu et al., 2005, p. 397; Bhattacharyya, 2004, pp. 587–590; Hall & Jones, 1999, pp. 83–116; Rodrik, 2003, pp. 1–22; 2013; Rodrik et al., 2004, pp. 131–165; Spolaore & Wacziarg, 2013, pp. 325–369).

Although the factors from the first group are the direct, closest causes of growth, they themselves depend (directly or indirectly) on its deep determinants relating to those variables that have a significant impact on the country's ability and capacity to accumulate production factors and invest in production knowledge (Owen & Weatherston 2007, p. 139). There are many candidates for the group of fundamental determinants of economic growth, and their list created by economists, historians, sociologists and biologists is getting longer and longer (Acemoglu, 2009, p. 155; Kacprzyk, 2014, p. 80; Rodrik, 2002). Current work indicates several potential deep-rooted growth determinants such as geographic factors (Bhupatiraju, 2014; Easterly & Levine, 2002; Gallup & Sachs, 2001, pp. 85–96; Gallup et al., 1999, pp. 179–232), institutions (Acemoglu & Robinson, 2012; Acemoglu et al., 2001, pp. 1369–1401; 2002; Besley & Persson, 2011; Rodrik et al., 2004, pp. 131–165), international integration (Dell et al., 2008; 2009; Nordhaus, 2006, pp. 3510–3517); cultural differences (culture) (Acemoglu 2009, p. 157; Quamrul & Galor, 2011a; Spolaore & Wacziarg, 2013, pp. 325–369), biogeographic factors (Bleaney & Dimico, 2008; Diamond, 1997; Olsson & Hibbs, 2005, pp. 909–938), historical (Comin et al., 2010, pp. 65–97; Putterman & Weil, 2010, pp. 1627–1682; Quamrul & Galor, 2011b, pp. 2003–2041; Spolaore & Wacziarg, 2009, pp. 469–529; 2015) and even biological (e.g. genetic traits) (Quamrul and Galor, 2013, pp. 1–46; Spolaore & Wacziarg, 2013, pp. 325–369; 2014, pp. 121–76). These factors are discussed and studied not only as determinants of growth but also of economic development.

In the "classic" approach of Rodrik (2002), introducing the concept of deep determinants of growth into a wide range of economic literature, it is the first three of the above-mentioned factors that constitute the fundamental determinants of economic growth. They create conditions for the effective use of factors called shallow determinants in the process of economic growth. The diversity of geographic, institutional and economic openness factors, influencing proximate growth factors, determines differences in the rate of economic growth in the long term and in the level of economic development between countries. Using the threefold taxonomy of growth elements, which significantly affects its final value, to endogenous, semi-endogenous (or partly endogenous) or exogenous (Dowrick, 1995, p. 7), links between proximate and fundamental determinants of economic growth are presented in Scheme 1.

Deep determinants are either completely beyond our influence (they are exogenously defined) or are only slightly, indirectly affected by our influence. The shallow growth determinants distinguished in this modelling are fully endogenous, as they are shaped by economic decisions and politics. According to Rodrik (2002), income growth depends on such endogenous, shallow factors as physical capital deepening, human capital accumulation (factor endowments)

and productivity growth. In turn, he classified geographical factors, trade (integration, openness of the economy) and institutions as the fundamental reasons for growth. In this approach, geographical conditions are the primary and, in fact, the only exogenous factor. In contrast, the degree of integration and the nature of the institution are partly endogenous factors.

Geographic factors refer to the advantages and disadvantages of a country's location, its physical location, such as latitude, proximity to navigable waters, access to sea, topography, climate, natural resources availability, etc. (Rodrik, 2002; Rodrik et al., 2004, pp. 131–165). Geographical location determines the impact on economic performance of various factors, e.g. climate determines society's exposure to certain diseases, amount of available natural resources can be a source of income or a resource curse, distance from markets determines transport costs, and from more advanced areas (economies) technologically and innovative about the diffusion of technology and knowledge. Since each economy is geographically endowed with the conditions in which it has to function and which are difficult to change in some far-reaching way, these original geographic conditions should be included in any growth analysis. The direct impact of geographic location on income may result from the fact that the availability of natural resources, the dislocation of the population and economic potential, and the productivity of agriculture and human resources depend on it. The indirect influence of geographic location on the achieved level of income results from the distance from the markets, which determines the share of a given economy in world trade and integration, or the impact on the quality of domestic institutions. The main problem in research on this indirect impact of geographic factors on income is to identify the channels by which they indirectly affect a country's economic performance.

According to Rodrik (2002), integration refers to the size of the market and the benefits (as well as costs) of participation in international trade in goods, services, capital and labour. In this way, the role of international trade as a driving force of changes in productivity is emphasized, being an indirect influence of this deep determinant of growth on the level of income per capita. Integration or its barriers play a major role in supporting economic convergence between rich and poor regions of the world (Rodrik et al., 2004, pp. 131–165). Integration understood as the degree of openness of the economy is therefore of decisive importance here, resulting from the level of protection of the domestic market, the scope of liberalization of capital and trade flows, population migration, dependence of the domestic market on international markets, and thus exposure to external economic disturbances. However, according to Rodrik (2003, p. 8), large dynamic benefits resulting from the openness and freedom of trade and the flow of production factors between countries may occur, provided that technological externalities and learning outcomes go in the right direction (increased productivity). Capital flows can further increase the benefits as long as they move from rich to poor countries and have externalities in management and technology (diffusion of capital and knowledge). His considerations on this

subject can be well summarized by the statement of Zagha (2006) that integration is not a guarantee, but it offers opportunities for accelerating the pace of economic growth.

According to Rodrik (2003, p. 5), institutions refer to the quality of formal and informal socio-political arrangements, from the legal system to broader political institutions that play an important role in promoting or obstructing economic activity. Among the relevant institutions, understood as the rules of the game in society favoring the desired economic behaviour, of great importance for initiating and sustaining economic growth, Rodrik (2002) mentions property rights, appropriate regulatory structures, the quality and independence of the judiciary, and bureaucratic capacity. Improving property rights, the rule of law and other aspects of the institutional structure of the economy may become an independent, autonomous determinant of the achieved income level because good institutions, i.e. creating the structure of incentives reducing uncertainty and supporting effective markets for goods and production factors, contribute to the improvement of economic results. In many countries their presence cannot be taken for granted — these institutions would not emerge endogenously and effortlessly as a by-product of economic growth, they rather are the basic preconditions and determinants of growth (Rodrik, 2003, p. 8).

The experience gained from developing countries has shown that the implementation of a reform package that did not require deep institutional changes did not bring lasting effects, as the underlying institutional solutions turned out not to be good enough (Rodrik, 2006, pp. 973–987). Rodrik (2008) also emphasizes that institutional changes introduced in developing countries should not be a copy of "best practices" from developed countries, because appropriate institutions for developing countries should be the "second-best" institutions, i.e. those that take into account the contextual specificity of the market and a state failure that cannot be changed immediately.

The degree of integration and institutions are linked by the feedback loop marked with arrows in Scheme 1. The increase in the level of income may be either the result of an improvement in the quality of the institutional structure in the economy or an increase in the degree of openness, or the richer countries may improve the quality of functioning institutions and / or be more open to integration and international trade. These causal relationships become more complex, as growing trade and expanding integration turn out to be the main effects of increasing productivity in economies and / or improving the quality of their institutions, rather than their causes. According to Rodrik et al. (2004, pp. 131–165), institutional factors play a decisive role in stimulating economic growth. Traditional location factors are of less importance, although the nature and quality of some institutions are geographically driven[2].

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[2] The significant role of institutions in growth and development is also confirmed by more recent literature (Acemoglu et al., 2014, pp. 875–912; Giménez-Gómez et al., 2018, pp. 1797–1831; Glawe & Wagner, 2019; Jones, 2016; Kacprzyk, 2014).

# 3. Materials and methods

The study covers the fundamental factors of economic growth in selected 24 countries of Central and Eastern Europe and Central Asia, which introduced the market system in their economies in the early 1990s. As the independent variable reflecting economic growth Gross Domestic Product (GDP) per capita[3] was used to compare data from 1999, 2008, 2018. The values of this variable from 2018 were used as a criterion for ranking the surveyed countries when determining the current stages of their development, in line with the income thresholds of the World Economic Forum (Sala-i-Martin et al., 2009, p. 12; 2016, p. 38):
- above USD 17,000 — group I, comprising the richest and the most developed countries;
- between USD 9,000 and 17,000 — group II;
- between USD 3,000 and 9,000 — group III;
- between USD 2,000 and 3,000 — group IV;
- below USD 2,000 — group V, comprising the poorest and the least developed countries.

Nevertheless, for the purpose of the analysis carried out in this study, four instead of five groups have been distinguished. None of the analysed countries has been allocated to the group IV, distinguished by WEF, which GDP per capita would fall within the range USD 3,000K–2,000K. The other groups of countries differ by quantity. The richest countries (group I) represent 6 countries, the poorest ones (group V) 3 countries. In terms of quantity the greatest is group III (8 countries) and group II comprising 7 countries (compare Chart 1). The division of the studied countries into these four groups is the basis for further statistical analysis and for illustrating the changes in fundamental growth determinants that took place within these groups.

In the literature, the variable representing geographical factors is usually the distance of a given country (its capital city) from the equator. The differences in the location of a country established in this way determine many natural conditions. All analyzed countries of Central and Eastern Europe and Central

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[3] In previous research, conducted in 2010, the year of introducing major reforms was used as the starting year for the comparisons of GDP values and data characterizing the openness of the economy. However, for two reasons, the analysis presented in this paper uses 1999 as the starting point. The first reason relates to the post-reform transformational recession. In all analyzed countries, production decreased, regardless of the initial conditions and the way of transition to the market economy, but lasted for a different number of years — the shortest in Poland (2 years), the longest in Ukraine (8 years) (Kukułka et al., 2012, pp. 29–44). This means that in 1999 only the last of the 24 analyzed countries was affected by this recession. The second reason is the desire to standardize the time span of the analysis of fundamental growth factors. In previous research, the starting year for the analysis of the quality of the institutional environment was 1999, when information on the value of one of the included institutional quality indicators was published for the first time.

Asia are located in the Northern Hemisphere, at slightly different distances from the equator. In their case, the main geographic condition is the fact that the economies in question remain within the indirect (as a non-republic) or direct (as a former republic) influence of the former USSR. This geographic and exogenous factor in relation to the economies of these countries formed an element of the initial conditions and had an impact on the time when the main elements of transformational reforms were introduced. This will be the subject of considerations in the next part of the study, although the geographical location, following the literature, was treated as an exogenous variable.

The remaining fundamental growth factors characterized by the six indicators selected from two areas were subject to statistical analysis. Three indicators were applied to present the level of openness of the economies under study, as the one of fundamental growth factors:
- export to GDP ratio (in %) (Exp/GDP);
- import to GDP ratio (in %) (Imp/GDP);
- foreign direct investment to GDP ratio (in %) (FDI/GDP).

The first two indicators characterize openness of the current account, and the third one — economy openness to the foreign long-term capital flows. Three values of the analyzed ratios — in years 1999, 2008 and 2018 — like in case of GDP per capita, were considered.

Next three indicators were applied to present the institutional environment of the economy under study, as the one of fundamental growth factors:
- democracy score (ID);
- corruption index (IC);
- rule of law indicator (RL).

The democracy score assesses mainly the quality of political institutions and ranges from 1 to 7 — the higher the score, the worse the democratic state. It is estimated by the Freedom House organisation, which publishes ratings of democratic developments for transition economies. The corruption index ranges from 1 to 7 — the higher the value, the worse the evaluation and the greater the corruption. It is one of the seven elements of the democracy score, separated in this study owing to its importance to the official statistics of economic growth. The rule of law indicator ranges from −2.5 to +2.5 — the higher the value, the better the evaluation of the institutions in a given economy. It is one of the six key dimensions of the Worldwide Governance Indicator (WGI) — a measure developed by the World Bank to embrace various aspects of institutional structure of economies and a base for the rating of country performances.

For four groups of countries, distinguished according to their GDP per capita, average values of the above described variables, characterizing the fundamental growth factors, were calculated for each of the three years of the analysis to show the changes in these areas. The standard deviation was used to characterize the homogeneity / diversity of the identified groups of economies.

# 4. Results

In the analyzed countries, due to the manner of implementation (radical or gradual changes), duration of reforms was different but from the point of view of the conducted analysis it is more important in which year they were introduced, which is expressed in Chart 1 with the date and number of months since the start of the transformation processes , given in parentheses next to the name of a country. The most important elements of the stabilization programs in the analyzed countries were introduced at different times from the beginning of the transformation — the fastest in Poland and Hungary, and the latest in Russia itself, two former Asian republics (Azerbaijan and Tajikistan) and in Romania. A certain regularity can be identified here. With the exception of the last-mentioned country, Albania and Kyrgyzstan, the further south and east the economy in question is located, the later stabilization initiatives were introduced there. The geographical location of the analyzed countries has one more important consequence that determines the conditions of the initial transformation processes. The analyzed countries were under the direct or indirect influence of the USSR, but irrespective they were former socialist countries, former European Baltic republics or Asian republics, this had a significant impact on the level of GDP per capita. In 1999, the value of this indicator in none of the surveyed countries exceeded the lower threshold for the richest countries, and Slovenia, with the highest level among the surveyed countries, reached a value close to USD 11.5K. In 2018, the group of the richest countries consists of economies, where stabilization initiatives were introduced relatively early (compare Chart 1) and three of them were under the direct impact of the former USSR before transition, but their northern location (former Baltic USSR republics) could be of great importance in this case. And only Estonia, as one of them, also belonged to the group of the four richest countries in 2008. The last group in 2018, the poorest countries, comprises of three former USSR republics located in the south east, and this location, far from the centre of Europe, had affected their initial conditions, the process of transition and the effects of their reforms. These countries belonged to the group of the least developed in the entire analysed period, and the group of such countries decreased quite quickly — in 1999 it consisted of as many as 15 countries.

Charts 2 and 3 present data for groups of countries in terms of the openness of their economies and the quality of institutions. The distinguished groups of countries are internally differentiated, which is indicated by the value of the standard deviation for individual variables. Each of the groups is the most diverse in terms of FDI / GDP. Especially group II , due to Hungary, where in 2008 the inflow of FDI amounted to 47.5% of GDP (average for the group is 13.5%), and in 2018 there was an outflow of FDI amounting to 41.5%, with the average value of this indicator for other countries of this group at 1.8%.

However, the distinguished groups of countries are also distinct from the other groups. As shown in Chart 2, at the beginning of the analysed period,

the countries belonging to group I had high rates of the share of export and import in GDP, which were constantly growing at a rapid pace. This tendency did not occur in any of the other groups in which the increase in the value of these indicators was much smaller (group II) or changed in various directions.

In the case of the last of the analysed indicators, i.e. openness of economies, the initial increasing and then decreasing tendency of changes in this indicator was identified in all groups of countries. The largest openness of economy was indicated in group II due to the above-mentioned Hungary , with the increase over 6 times in 2008, what in this respect made this country the most open among the analysed countries. It should also be emphasized that group II of countries was the most open to FDI flows in each year of the analysis.

The distinguished groups of countries also vary internally in terms of the quality of institutions, although this differentiation is smaller than in the case of the openness of the economy. The poorest three economies form the most homogeneous group. Assessments of the quality of institutions operating in the analysed years changed in the analysed economies in various directions. Each group of countries may include economies that experienced a slowdown in democratic processes, increased corruption or decreased rule of law, or economies where all of these negative changes occurred. But the poorer group of countries is considered, the more frequent these negative changes and the lower the quality of institutions expressed by the value of the indicators taken into account. Compared to other groups of economies, the group of the richest countries prominently stands out. In these countries the value of IC decreased, showing an increase in control over corruption, and RL grew, indicating an improvement in the rule of law. Although slight positive changes in the last area of institutional conditions can also be noticed in other groups of countries, it is clearly noticeable that the lower the quality of institutions, the less wealthy and developed the group of countries under consideration.

# 5. Conclusion

The analysis carried out to define the fundamental determinants of growth in 24 countries allows for the presentation of several conclusions, and determination of changes that have occurred within the deep sources of growth in the selected groups of countries seems to be relevant summary. For this purpose, Table 1 presents changes in the mean values of the analysed variables for all groups.

The main conclusion to be drawn relates to the importance of geographical factors for the economies concerned. Their geographical location in a specific part of Europe or Asia determined not only the natural conditions, the availability of natural resources (e.g. oil in Russia and all countries from group V), or cultural differences, but also determined the distance of these countries from more developed European economies, which had impact on their openness and degree of convergence. It is especially visible when comparing the group of the poorest countries to the rest. Although GDP per capita in 2018

in the countries of group V was more than 1.7 times its value from the initial year of the analysis and this change occurred mainly in the second decade of this period, this increase in comparison to other groups of countries should be considered as slight. Countries from the other groups performed better in this respect in the analysed period (especially in its first decade) and the value of their GDP per capita increased many times more (from 3.8 to 5.4 times).

It turns out, however, that these differences in income change were not related to analogous differences in the degree of the openness of economies of the examined groups of countries. The change in the openness of economies that make up the last group was either smaller (Imp / GDP, FDI / GDP) than the GDP changes, or clearly negative (Exp / GDP, despite oil exploration there) and occurred mainly in the first decade of the analyzed period. Similar observations also apply to other groups of countries — even positive changes in the openness of these economies were definitely smaller than changes in the level of their average income.

The geographic location also resulted in the type of influence of the former USSR within which the analyzed countries remained, and which in turn determined the institutional starting conditions of the economies in question. The literature indicates that the initial conditions significantly influenced the changes in production during the transformation period and the rate of economic growth. Although empirical research shows that it definitely weakened with time, it also suggests a different duration of their impact (Havrylyshyn et al., 2016, pp. 3–4; Kukułka et al., 2012, pp. 29–44). The analysis shows that the initial conditions may have had an impact much longer than is commonly assumed, and the differences in the initial conditions and the time of introducing transformation seem to be more important determinant of growth than differences in the degree of openness of economies.

Transformation is perceived as a long process of changes in formal and informal institutions, therefore we should expect that the importance of institutions for the economic performance in the countries in transition will be large and increasing over time (Godłów-Legiędź, 2005, pp. 171–181; Grogan & Moers, 2001, p. 327; Havrylyshyn, 2001, pp. 53–87; Havrylyshyn et al., 2016, pp. 9–11). The results of the analysis seem to prove that. The countries that introduced the major reform package earlier and improved the quality of their institutions faster (in particular, the countries from group I) achieved the highest GDP per capita growth in the analysed period. And it is not so much about the debatable positive impact of democracy, but about the increase in the rule of law (large positive changes in the RL index in the analysed period in the group of the richest countries only) and the reduction of corruption (a significant decrease in the value of the IC index only in group I of countries), which reflects a wide range of economic and legal changes. Countries that started macroeconomic stabilization early and quickly, and significantly liberalized the market as well as made other changes in institutions also achieved better economic results. As Jones (2016, pp. 49, 51) emphasizes, institutional differences are the funda-

mental determinants of long-term economic success, and national boundaries are where various political and economic institutions begin and end. Geographic endowments do not provide permanent economic success, but rather can be changed with the rules introduced.

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# Acknowledgements

# Appendix

**Table 1.**
**Change in indicators of fundamental growth determinants of analysed groups of countries**

| Variable | Change | Group I | Group II | Group III | Group V |
|---|---|---|---|---|---|
| GDP | 2018/1999 | 3.81 | 4.44 | 5.41 | 1.73 |
| | 2018/2008 | 1.09 | 1.06 | 1.11 | 1.32 |
| exp/GDP | 2018/1999 | 1.77 | 1.22 | 1.31 | 0.61 |
| | 2018/2008 | 1.25 | 1.15 | 1.17 | 0.60 |
| imp/GDP | 2018/1999 | 1.52 | 1.02 | 1.15 | 1.04 |
| | 2018/2008 | 1.12 | 1.00 | 0.98 | 0.70 |
| FDI/GDP | 2018/1999 | 0.55 | −0.73 | 0.98 | 1.22 |
| | 2018/2008 | 0.53 | −0.31 | 0.48 | 0.31 |
| ID | 2018/1999 | 1.24 | 1.31 | 1.13 | 1.16 |
| | 2018/2008 | 1.32 | 1.22 | 1.07 | 1.05 |
| IC | 2018/1999 | 0.77 | 1.01 | 0.98 | 1.12 |
| | 2018/2008 | 0.81 | 1.04 | 1.00 | 1.06 |
| RL | 2018/1999 | 1.57 | −0.44 | 0.49 | 0.94 |
| | 2018/2008 | 1.22 | −0.34 | 0.59 | 0.97 |

Source: Own preparation.

**Scheme 1.**
**Proximate and fundamental determinants of growth**
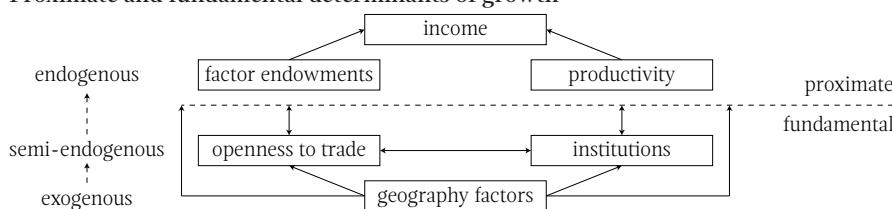


Source: Own preparation based on (Bloch & Tang 2004, pp. 245–255; Brodzicki & Ciołek, 2007, p. 5; Rodrik, 2002; 2003, p. 5; Rodrik et al., 2004).
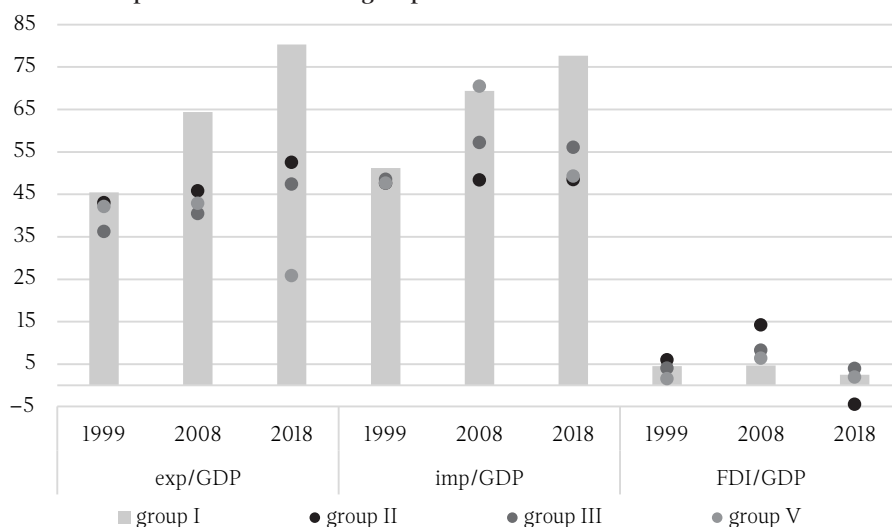
Chart 1.
**Stages of development of countries CEEs and Central Asia according to WEF (GDP per capita in USD)**
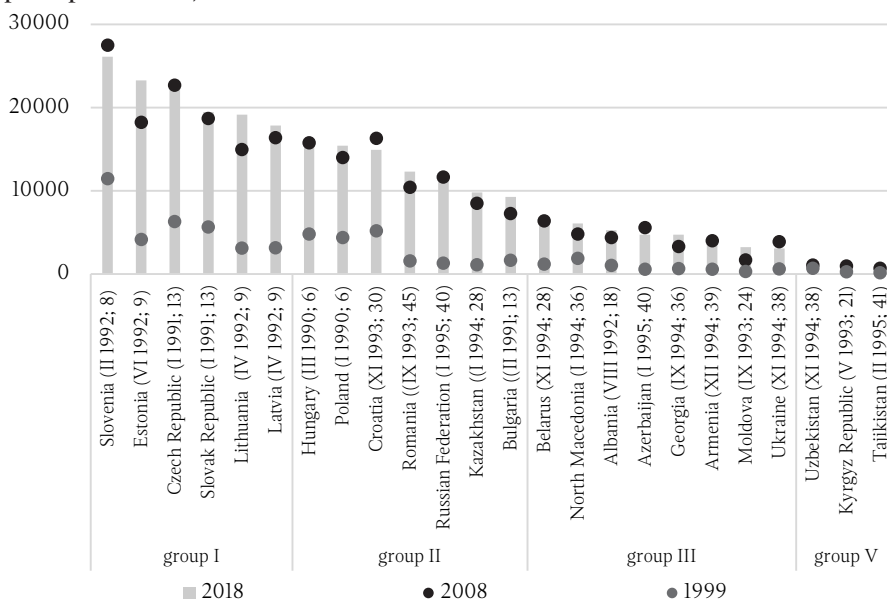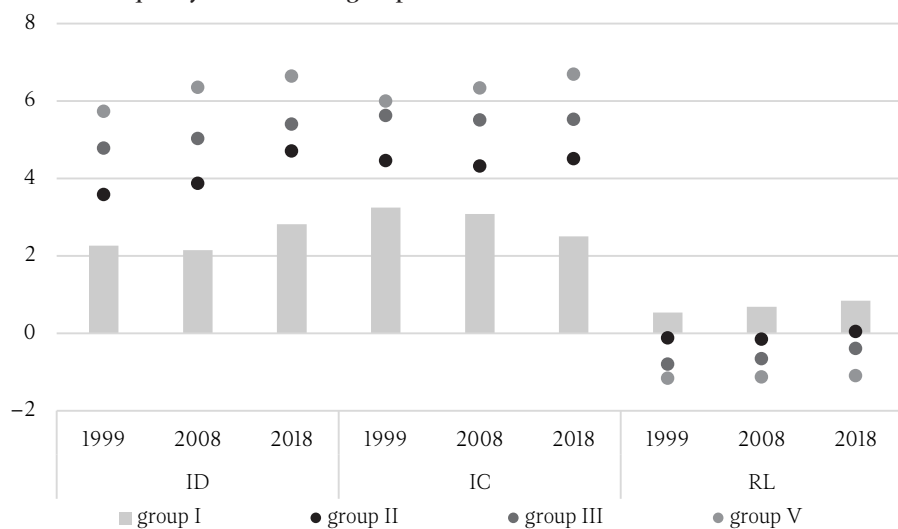


Source: Own preparation.

Chart 2.
**Economic openness indicators of groups of countries CEEs and Central Asia**



Source: Own preparation.

**Chart 3.**
**Institution quality indicators of groups of countries CEEs and Central Asia**



Source: Own preparation.