

Bojan Krstić*University of Niš, Faculty of Economics***Miloš Krstić***University of Niš, Faculty of Sciences and Mathematics***Ivan Đekić**

P. 1-12

ORIGINAL SCIENTIFIC ARTICLE

Received: April, 19, 2018

Accepted: May, 21, 2018

SUSTAINABILITY OF DEVELOPMENT AND GROWTH - CRISIS, DISTRIBUTION OF INCOME AND INEQUALITY

Abstract

In the first part of the article, the reasons for transition of modern civilization to the concept of sustainable development are examined. The authors stressed the importance of shifting socio-economic development paradigms based on excessive exploitation of natural resources by the new paradigm based on the progressive system of knowledge and behaviour of man. In the second part of the article, the attention is paid to the factors of sustainable growth, including inequality in distribution of income. It is pointed out that stimulating economic growth is much smaller problem than its maintenance in the long run. By analysing factors that determine the sustainability of growth, it can be shown that the following factors correlate with long-term growth: equal distribution of income; improvement of political institutions; increasing the level of education, health care and physical infrastructure; international financial integration; competitiveness and export structure; trade liberalization and macroeconomic stability.

Key words: *sustainable development, socio-ecological-economic system, ecological crisis, sustainable growth, distribution of income.*

JEL classification: *O1, O4*

ОДРЖИВОСТ РАЗВОЈА И РАСТА – СЛОМ, РАСПОДЕЛА ДОХОТКА И НЕЈЕДНАКОСТ

Абстракт

У првом делу рада истражвани су разлози за прелаз савремене цивилизације на концепт одрживог развоја. Истиче се важност смене социо-економске парадигме развоја засноване на прекомерној експлоатацији природних ресурса новом парадигмом заснованом на прогресивном систему знања и понашања човека. У другом делу рада обраћа се пажња на факторе одрживог раста, укључујући и неједнакост у расподели дохотка. Истиче се да је стимулисање привредног раста много мањи проблем него његово одржавање у дугом року. Анализом фактора који одређују одрживост раста може се показати да су следећи фактори у корелацији са дугорочним растом: равномернија расподела дохотка, побољшање политичких институција, повећање

нивоа образовања, здравствене заштите и физичке инфраструктуре, међународна финансијска интеграција, конкурентност и структура извоза, либерализација трговине и макроекономска стабилност.

Кључне речи: *одржив развој, социо-еколошко-економски систем, еколошка криза, одржив раст, расподела дохотка*

Introduction

In the human rights body, as the most important features of modern humanity, the right to a healthy environment is an institutionalized form of ecological values that belong to all people. But, nature has "its rights". The emergence of ecological values in our civilization is suppressed by an anthropocentric, liberal model of development based on "improving the country" and excessive exploitation of natural resources and absolute freedom of people in relation to ecosystems. "In no case the people's rights over other factors of life cannot be explained. The basic ecological principle is not the management of one another, but the mutual dependence of all coexisting parts within the whole" (Keler, 2006, 406). In accordance with this deep ecological principle and the universal value of life, we critically estimate that the neoliberal economic paradigm of uncontrolled economic growth is not a sustainable model of economic and overall social development. The only integral ecological-economic model of development, in the society of the risk in which we live, can provide a sound basis for the economy and the life of society and nature (Hafner, 2016, 26).

In this paper is considered the importance of factors determining the sustainability of growth, including inequalities in the distribution of income as an essential prerequisite for the sustainable development of the country and humanity.

The paper is structured in/consists of two parts. In the first part, the basic characteristics of the concept of sustainable development are given. The emergence of the concept of sustainable development was preceded by serious research on the environment, which established that human kind is living in conditions of devastating ecological crisis that turns into crisis of all humanity and which can lead humanity to destruction. It is said that modern civilization is helpless against senseless militarization and the colossal potential for self-destruction. All land-based systems are approaching their biophysical boundaries. The basic orientations and issues of humanity's exit from a systematic crisis are contained in the conception of sustainable development. At the end of this section, special attention is paid to the subject of the study of the concept of sustainable development - a socio-ecological and economic entity that represents a specific combination of the social, ecological and economic system that together function within defined institutional environment.

In the second part of the paper, the focus is on the sustainability of the growth period (the duration of economic growth) - defined as the time period beginning with the rise of growth and ending with the decline in growth, and the relationship between the duration of growth and the various policies and parameters (characteristics) of the country, including distribution of income. It is pointed out that many of poor countries have managed to achieve high economic growth in the medium term. However, it should be noted that developing countries rarely manage to sustain growth in the long run, and that is what distinguishes successful countries with rapid growth in the long run from

poor countries. In this respect, the question arises: what determines the duration of the period of growth and what role does the inequality in the distribution of income have?

1. The concept of the sustainable development and the new socio-economic paradigm

At the transition of the society from industrial to industrial-information, scientific conceptions, theories and models of human development are inevitable. One of the particularly important concepts of human development is the concept of the sustainable development. The emergence of the concept of sustainable development was preceded by serious researches on the environment in the world which found that humankind is living in conditions of growing ecological crisis, which turns into a crisis of the whole mankind and it which can lead us to destruction. The ecological crisis can be described as a disturbance of balance in ecological systems, and in the relationship between society and nature, which are consequences of the unresolved contradiction between the consumer's relation to the environment and the ability of the biosphere to maintain a system of natural bio-chemical processes.

Scientists stress that in the history of the Earth there were cases of civilizations tribulations. The typical example is the disappearance of Atlanta - advanced civilization. Interestingly, among the causes of the disappearance of Atlantis, the scientists say also technical and social factors, not only natural factors. Famous physicist Dž. Farrell represents the hypothesis of the technocratic catastrophe, which occurred 10-12 years ago. He argues that "the Egyptian pyramids were part of a gigantic military experiment in the creation of a particle arms of unprecedented power - an experiment which ended with global disaster (Farrell, 2009). The main idea, which has intrigued the world with the myth of Atlantis, is that the natural disaster coincides with the social crisis that the Atlanteans produced and it led to the disappearance of civilization, without traces (Bakšutev, 2009).

Analysing the history of civilization, the attention is paid not only to the external causes of social disasters related to war and war conquests which by external barbarians have demolished developed civilizations, and instead have raised them backward. Namely, states and civilizations essentially demolish internal barbarians in the form of a ruling minority (exploiters, economic elites). External attacks only complete what was created as a result of the transformation of advanced civilization into barbarism which arises when the optimal relationship between production and consumption, collective and individuals, man and technique, society and nature, rich and poor people is disturbed. Speaking of the moral and social stratification of Atlanta's inhabitants, the scientist is referring to Plato's works "Timaeus" and "Critias" (Bakšutov, 2009).

Comparing the past and present, it can be seen the transformation of advanced civilization into barbarism - global technocratic crisis that affects the social, ecological and economic sphere of life. In the Declaration on Environment and Development adopted to the Second UN Conference on Environment and Development (Rio de Janeiro, 1992), the following observation is emphasized: "Humanity survives the crucial moment in its history. We are confronted with the problems of the disparities between states and within the states themselves, with the continual deterioration of the state of ecosystems on which our well-being depends." Scientists T.A. Akimova and J.U.N. Majsekin point out that two contradictory tendencies are developing in the economy:

global gross domestic product is rising, and global wealth decreases (living resources) (Akimova T.A., Moseikin Yu. N., 2009).

Modern civilization is helpless against senseless militarization and the colossal potential for self-destruction. Man has been underestimated the loss of natural resources. In line with the Global Environmental Perspective - the paper prepared within the UN program on the environment for the "Rio + 20", all systems are approaching their biophysical boundaries, with evidence that these borders are already close and that in some cases they have been crossed.

Air pollution is one of the main causes of premature mortality and health problems, especially in the child population. The risk of disappearing coral is much higher than the risk that threatens any group of living organisms. In recent decades, the wanton destruction of fish resources have been witnessed. Regardless of the series of improvements, water quality remains the main reason for human health problems worldwide. At the same time, climate change and further population growth can lead to an even greater water shortage in many areas. The quality of water is not compatible with the standards of the World Health Organization. As expected, more than 600 million people will not have access to drinking water in 2020, and more than 2.5 billion people will be deprived of basic sanitation.

Some progress has been made in ensuring access to food, although the struggle with desolation and drought has, in practice, yielded no positive results. Competition in terms of food, fuel and raw materials increases the pressure on the planet, affecting the development process of deforestation.

The basic orientations and issues of humanity's exit from the systematic crisis through the practical implication of the concept of sustainable development are contained in documents of the UN program dedicated to the environment and sustainable development. This conception has a declarative character. This means that the conception of sustainable development merely stresses the content of the opinion and observation on the environment of the UN, but it does not have a binding character. And so with whole its declarativity, the concept of sustainable development has succeeded in putting global analysis on the side of a complex of environmental and related social problems and has led to the formation of a new generally accepted model of civilization development that is called to replace an old civilization based on the anthropocentrism, enrichment and satisfaction material human needs.

The most valuable in the ideology of the sustainable development is the management of economic, environmental and social risks (Afanasiev, 2015). Sustainable development implies the management of civilization risks. Parallel with the shift of the generally accepted model of world development, the shift of the generally accepted scientific theory (paradigm) is studied. Thus, philosopher and mathematician Tomas Samuelson Kun argues that the shift of the generally accepted is arisen when scientists discover anomalies that cannot be explained by the paradigm. In V.S. Stepin's paper the diagram of the development of general-school paradigms from the beginning of the 17th century is given. Stepin describes the characteristics of the scientific revolution caused by the creation of: 1) classical mechanics (which studies free systems), 2) classical disciplinary organizational sciences, 3) neoclassical general system theory (cybernetics) associated with the construction of complex self-regulating systems, 4) post-classical science (synergetics) examined by complex self-regulating systems (Stepin, 2007).

The development of synergy enables the creation of a theoretical and methodological

basis for the realization of the concept of sustainable development directed at such large and complex self-developing systems, such as biosphere and society. Confirmation of the fundamental role of random fluctuations in the developing world lies in the basis of synergetic paradigm. The coincidence and indeterminacy appear as an inseparable feature of not only the micro world, but also the whole universe, including the man himself with his unpredictable emotions and the incredible diversity of variants of behaviour in identical situations (Haken, 1993).

Today, various social, economic and environmental phenomena are studied with the synergetic instruments within the social sciences. Scientists note the significant influence of synergetics has on contemporary economic theory on the complexity of the phenomena that are being studied. It should be noted that the savage paradigm of socio-economic development, based on a neoclassical theory based on the model of a rational (maximizing) man in a balanced (self-regulating) world and an emphasized consumer relationship with nature, undergoes a serious scientific critique.

The beginning of the economic crisis in 2008 showed the superficiality of the pre-crisis intellectual mainstream (the dominant scientific direction in the development of contemporary economic thought) in determining the contradiction of contemporary development and the fundamental problems of contemporary economic-centric civilization. On this occasion, it is pointed out to Karl Polanyi's statement, according to the industrial revolution of the 19th century created an unusual type of society, in which the economy is not included in the system of social connections, but social connections are embedded in the economic system. In this society, the production is secondary, it is viewed from the point of view of gaining profit, the social structure turns into a formless mass, and our humble dependence on the material, which human culture has always sought to alleviate, has been consciously strengthened and introduced in the master class.

Some of the countries that have built socialist society have adapted to industrial civilization. However, the fundamental problem remained, and the neo-liberal market system made the economy rise to the deity. The acceptable alternative to standard model of economic development is not found among modern Asian's models of development. For example, the Chinese model of economic development puts the economic growth and mass production leading to the modern and inefficient ecological economy in the most populous country of the world.

Among the features of the crisis of the modern paradigm of economic development, its inability to solve new tasks on the path of development of human society in the field of biosphere is singled out. Criticizing the traditional neoclassical theory, Akim and Massachwrite: "Traditional economic science does not give answers to the most important practical questions. How to measure the quality of economic growth? Does the increase in goods and services influence the quality of life? How to compare the dynamics of the development of the economy and the possibilities of natural systems?". According to the scientists, in order to replace traditional economic science for the concept of sustainable development, it requires scientific knowledge about the behaviour of people and human societies in conditions of social and ecological constraints. The transition to the concept of sustainable development, according to Akimova and Masaykin, is related to the emergence of a new way of thinking, a new view of the world, which requires the realization three conditions: the change of the object of the management itself, the change of the set development goals and the reliance on social and ecological limitations. The authors believe that within the concept of the of

sustainable development, economy, ecology and society must be regarded as mutually interconnected, interdependent, mutually subordinated subsystems of a single entity.

2. Sustainability of economic growth

The recent financial crisis and the impact that it has on employment and poverty confirm the view that it is necessary, over and over again, to pay attention to growth factors, including the possible link between inequality of income, crisis and sustainable growth. Piketi and Saez noted the high increase in inequality in income distribution in the United States over the past two decades (Piketty&Saez, 2003).

A large number of economists have researched the following problem: to what extent does the inequality of income lead to a crisis? Ryan points to the existence of political and economic pressure that forced people with high income to accumulate money, and people with a low level of income to maintain the level of spending through borrowing (Rajan, 2010). Recent events in Tunisia and Egypt show how important of understanding the complex, reciprocal relationship between income distribution and economic growth. Too high levels of inequality can become an obstacle to growth. In addition to the risk that inequality increases the possibility of a financial crisis, it can also affect political destabilization, which, in turn, can reduce investment.

For the significant reduction in poverty, it is crucial to achieve rapid economic growth in the long run. For these purposes, it seems that long-term growth regressions of Robert Barro and similar analyses are the most relevant. These analyses assume that growth is more or less uniformly increasing real income (per capita), that changed by low shocks - fluctuations of the business cycle - with possible, an occasional increase in real income for as much as poor countries (developing countries) integrate into the global economy (Barro, 2000). Figure 1 shows an increase in the level of real per capita income in two developed countries (United Kingdom and the United States), according to a pattern that is in line with the above definition of growth. If this is the standard pattern, the most interesting question is: how to explain the fact that some countries develop faster than others in the long run.

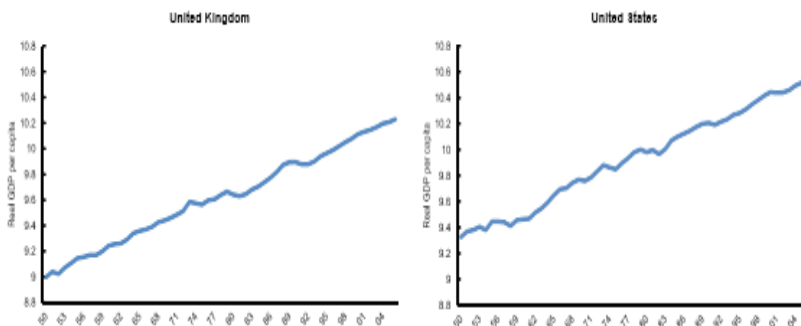


Figure 1. An uniform increase in growth (real GDP per capita)

Source: Berg, A., & Ostry, J. (2011) Inequality and Unsustainable Growth: Two Sides of the Same Coin? IMF Staff Discussion Note, 11(8): 1–14.

Figure 2 shows the level of real per capita income in the group of developing countries (Brazil, Cameroon, Chile and Jordan). Unlike the figure 1, the different experiences of developing countries is noticeable. Considering similar figures, Pritchett and others have discovered that understanding growth must include the detailed consideration of the turning points (breakpoints), it should be not taken into account the ups and downs of growth within the business cycle, but the analysis of the question why some countries are able to sustain growth in the long term in time, while others explore the causes of decline every five years, followed by stagnation and deep recession (Pritchett, 2000). In order to get an answer to this question, the research focuses on the growth period, defined by the time interval that begins with the growth upbreaks and end with a downbreaks. The minimum length of the growth period is 8 years.

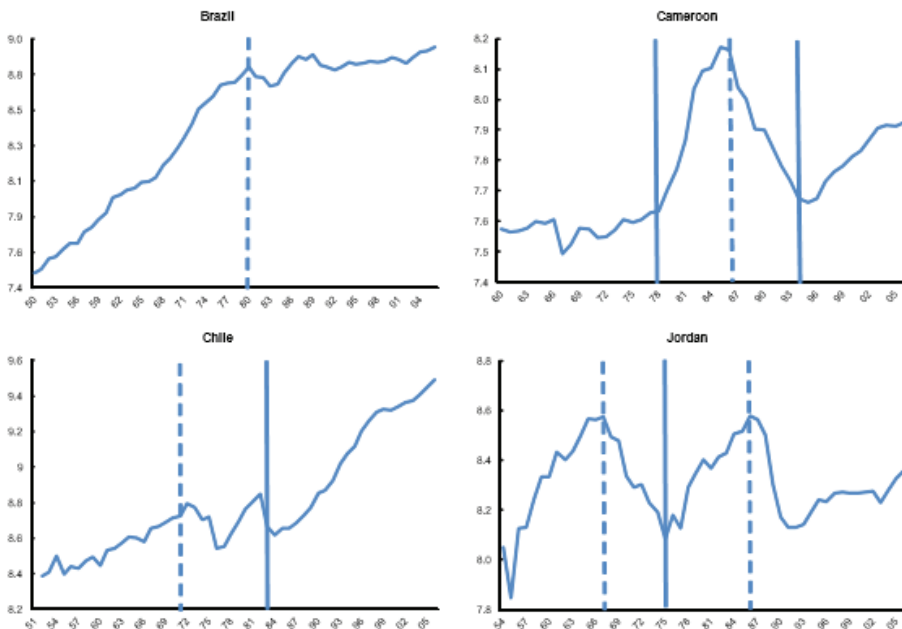


Figure 2. The upbreaks, downbreaks and period of stable growth (real GDP per capita)
 Source: Berg, A., & Ostry, J. (2011) Inequality and Unsustainable Growth: Two Sides of the Same Coin? IMF Staff Discussion Note, 11(8): 1–14.

The sustain growth in the long run is interesting for two reasons:

- First, looking at the growth of developed and developing countries (Figures 1 and 2), stimulating growth is a much smaller problem than sustaining growth over long periods (Hausmann, Pritchett & Rodrik, 2005). Developing countries from time to time have managed to increase growth in the short or medium period. Nevertheless, the growth of developing countries is different from the growth rate of success for as long as developing countries are able to sustain growth over a long period of time.
- Second, in recent years, countries enjoy the stable economic growth in a much higher degree than in any other period of the last thirty years. A large number of the growth period of Africa, subscribed in sub-Saharan Africa, where many scientists studied the development of the country in the mid-1990s.

The first observation related to changes in growth (upbreaks and downbreaks) and growth periods is that growth and growth are quite frequent, which confirms the idea that growth is not uniform (the real added per capita does not increase evenly, as indicated by the long-term growth regression of Robert Barr and similar analyzes). On the other hand, the problem of underdeveloped countries (the countries of Latin America and Africa) is the inability to sustain growth over a long period of time. Almost all growth periods in developed and developing countries in Asia last at least 10 years or longer, as observed in only two thirds of Latin American countries (Table 1). It will be that the long-term increase in the real gross domestic product per capita is what distinguishes the developed countries from the underdeveloped ones.

Table 1. Characteristics of growth period

Region	Frequency and the duration of growth period					Average growth before, during and after growth period				
	No. of countries	No. of periods	Mean duration (years)	% Periods lasting at least		Average growth			3 years	
				10 years	16 years	Before	During	After	Before	During
Complete growth period										
Developed countries	37	2	13.0	100.0	00.0	3.3	6.0	1.2	2.6	3.4
Developing countries in Asia	22	3	18.0	33.3	33.3	-0.7	9.1	1.4	1.4	1.9
Latin America	18	5	14.4	60.0	40.0	1.1	4.8	1.3	1.3	-1.3
Sub-Saharan Africa	43	3	8.3	00.0	00.0	-2.7	9.9	-4.0	-11	-6.5
Other countries in development	20	7	10.7	42.9	14.3	-1.6	5.0	-0.9	-1.4	-2.0
Total (including the full period of growth)										
Developed countries	37	11	24.4	100.0	63.6	0.7	5.7	N.a	-0.1	N.a
Developing countries in Asia	22	16	24.2	87.5	56.2	-0.3	5.8	N.a	0.4	N.a
Latin America	18	7	15.7	71.4	42.9	0.4	4.4	N.a	0.1	N.a
Sub-Saharan Africa	43	18	13.6	66.7	22.2	4.0	6.3	N.a	7.7	Na
Other countries in development	20	12	13.5	66.7	33.3	-2.1	5.0	N.a	2.8	N.a

Source: Berg, A., & Ostry, J. (2011) Inequality and Unsustainable Growth: Two Sides of the Same Coin? IMF Staff Discussion Note, 11(8): 1–14.

In addition to the issue of growth duration, another significant feature of the growth period data refers to the growth rate within and out of the growth period. Table 1 shows that all regions have high growth rate within growth periods, with countries of Sub-Saharan African with the highest growth rates. There are, however, great differences after the end of the growth period. In developed Asian countries, the end of growth is

without serious negative consequences (without stagnation and deep recession), while in Africa, periods usually end in deep depression.

To what extent is the duration of growth associated with differences in countries' characteristics and policies, including income distribution?, the question arises. It has long been believed that the quality of economic and political institutions, external orientation, macroeconomic stability and the accumulation of human capital are important determinants of growth, the great deal on the understanding of mechanisms and political consequences caused by their mutual connections was done Berg and Ostri agree that the distribution of income can be classified as significant factor determining growth.

To justify this claim, Berg and Ostry show a linear (simple) correlation between the duration of the growth period and the average of income distribution during the growth period for selected countries. The measure of inequality is the Gini coefficient, ranging from 0 (all households have the same income) to 100 (all income is allocated to one household). As Berg and Ostri point out there is the pattern: more equal distribution of income (lower inequality) is in correlation with long-term growth in time. The question arises: what are the possible channels through which inequality affects the duration of growth? (Berg & Ostry, 2011).

- The lack of credit market. Poor people may not be able to fund their education. The more equal distribution of income could increase investment in human capital. In the research of Berg and Ostry there is a negative correlation between certain indicators of human capital (especially secondary education) and distribution of income (Berg & Ostry, 2011). This confirms Wilkinson and Pickett's argument that countries with unequal distribution of income have poor social indicators (Wilkinson & Pickett, 2009).
- Political power. Political power will be distributed in a more egalitarian way than economic power in countries with a marked increase in inequality in income distribution. Attempts to use political power to influence the redistribution of income, for example, through the tax system, can discourage investment and lead to a reduction in the duration of growth (Alesina & Rodrik, 1994). In addition, attempts by the economic elite to oppose redistribution, for example, buying votes and corruption measures, are inherently negative and harmful, and can cause significant damage to economic growth (Barro, 2000).
- Political instability. Inequality in the distribution of income can increase the risk of political instability, and the resulting uncertainties can reduce the incentive for investment and hence slow down economic growth. Rodrik agrees that inequality and political instability reduce the effectiveness of countries in opposing external shocks (Rodrik, 1999). Similarly, Berg and Sachs point out as a rule that societies with a high degree of inequality face very serious debt crises (Berg & Sachs, 1988). It points out the link between unemployment and social unrest (IILS, 2010).

Many factors can affect the duration of growth. Berg and Ostry investigate the mutual relationship between the duration of growth and other factors. The research strategy of Berg and Ostry therefore consists in assessing other factors determining the duration of growth, and then to draw some conclusions. Analysing the variables it can be shown that the following factors are in a positive correlation with long-term economic growth (Berg & Ostry, 2011):

- Improving political institutions. Political institutions controlling the executive contribute to the prolongation of growth. Berg and Ostry have discovered that several measures have been taken to improve political institutions in correlation with longer growth.

- Increasing the level of education, health care and physical infrastructure. Improving initial or primary education has strong impact on the length of economic growth.
- Liberalization of trade. Trade liberalization has significant impact on the growth period, which is in line with the idea that mechanisms such as: increasing the size of the market, encouraging competition, and the spread of know-how can link the openness of trade and growth and increase the duration of growth.
- International financial integration. Foreign direct investment (FDI) contributes to an increase in the duration of growth period, while increasing the external debt leads to a reduction in the duration of the growth period.
- Competitiveness and export structure. The high share of industrial goods in total exports and economic policy measures to improve the export structure are in a positive correlation with the duration of the growth period.
- Macroeconomic instability (volatility). The rising depreciation rate of currency and inflation lead to a reduction in the duration of growth period.
- External shocks. Reducing the volume of trade and raising interest rates in the US, in particular, leads to a reduction in the duration of the growth period.

In principle, the results of the Berg and Ostry’s analysis are consistent with the interpretation of the East Asian “economic miracle”: growth is the most sustainable (in the longest terms) in countries that remain faithful to external orientation, have high inflow of foreign direct investment and insignificant external debt, maintaining macroeconomic stability and that have relatively equal income distribution. In addition, it should be noted that the results of the analysis of Berg and Ostry, in general, remain unchanged even when the countries of Asia are excluded from the sample.

It is possible that many of the identified factors are interconnected. To take this opportunity into account, Berg and Ostry investigate the cumulative effect of the identified factors. Many potential determinants of the duration of the growth period remain important in the multivariate analysis, although their significance (statistically and economically) vary depending on the particular sample, regardless whether or not other potentially significant variables are included or not, etc. Some variables are significant at least in several samples and specifications. The main results of the multivariate analysis of Berg and Ostry are the following (Berg & Ostry, 2011):

- Better (improved) political institutions are in positive correlation with the duration of the economic growth period: decreasing the autocracies level from 1 to 0 corresponds increasing the duration of the growth period by 25%.
- Liberalised trade, measured by a variable that takes the value 1 when trade is liberalized (when there are no restrictions on trade) and 0 in the opposite case, is associated with an increase in the duration of growth.
- Decreasing the appreciation of the currency is associated with longer duration of the growth period. Reducing the appreciation by 10 percentage points of the real exchange rate - measured as deviation from purchasing power parity, after the adjustment of income per capita, is associated with an increase in the expected growth period of 8 percent.
- The impact of financial globalization on the duration of the growth period depends on the flow (movement) of capital. A larger inflow of foreign direct investment is associated with long-term economic growth. Increasing the share of foreign direct investment in GDP of 8 to 12 percents is associated with increasing the expected growth period of 15 percent.

- Lower external debt is associated with long-term economic growth. Reducing the share of external debt to GDP from 44 percent to 39 percent leads to an increase in growth of about 2 percent.

The key result of the joint (multivariate) analysis of Berg and Ostry is that the distribution of income is one of the most robust or important factors of the duration of the growth period. It should be said that inequality remains a statistical and economic factor in a common (multivariate) analysis, despite the inclusion of many variables. Inequality, unlike other factors, retains its statistical and economic significance within the various samples and definitions of the growth period. In this way, the inequality is a more important determinant of the duration of the growth period than many other factors that are considered as key determinants of the period of growth (Berg & Ostry, 2011).

Conclusion

Ecological values are fundamental ideal and collective norms of behaviour whose acceptance in the economy and everyday life enables an integrated and harmonious development of society, economy and nature. Ecological values, ecological awareness and ecological culture are important determinants of sustainable development. Taking into account the principles of sustainable development and ecological value, it is possible to reduce, control and manage a number of risks that give our civilization characteristics of a risky society. In order to achieve a sustainable development of the socio-ecological-economic system, it is crucial to achieve rapid economic growth in the long run. For these purposes, policies that would reduce inequality and revive economic growth should be favored.

It should be noted that inequality is partly the result of market forces, but this is not sufficient to justify noninterventionism. If growing inequality, in a certain way, is the inevitable consequence of the development of market economy, then it would be expected a higher level of inequality in rich countries, but this is not the case. On the contrary, many differences in inequality in countries and in different periods can not be considered as the result of an efficient market. For example, some differences are obviously the result of the historical regularities of the country.

It should be bravely concluded that energetic (decisive) policies can reduce inequality. However, there is scope of policies to reduce inequality in income distribution, without undermining incentives that contribute to increase the duration of the growth period.

- Active labour market policies to encourage job creation can contribute to the recovery of economic growth, in particular when taking into account the fact that growing unemployment leads to an increase in inequality.
- Equality of opportunity or egalitarianism can lead to more equitable (fair) and more effective results. For example, effective investments in health and education - human capital - can adjust the cycle of long-term stimulating growth with equity, avoiding, in the short-term destimulating effects for economic growth. Investments in education and health can contribute that workers to adjust to new technologies. By doing so, these investments not only reduce inequality, but also stimulate sustainable growth.
- Some countries have managed to significantly reduce inequality through poverty-focused policies (Ravallion, 2009)
- Well-designed progressive taxation and adequate negotiating power of workers (strong unions) can also be important in ensuring equality. It is

necessary to avoid dual labour markets that encourage division between insiders and outsiders. In addition to the conclusions on economic policy at the country level, this research provides some recommendations for international institutions such as the IMF.

References

- Alesina, A., & Rodrik, D. (1994). Distributive Politics and Economic Growth. *Quarterly Journal of Economics*, 109 (2): 465–490.
- Barro, R. J. (2000). Inequality and Growth in a Panel of Countries. *Journal of Economic Growth*, 5 (1): 5–32.
- Berg, A., & Ostry, J. (2011). Inequality and Unsustainable Growth: Two Sides of the Same Coin? *IMF Staff Discussion Note*, 11(8): 1–14.
- Hausmann, R., Pritchett, L., & Rodrik, D. (2005). Growth Accelerations. *Journal of Economic Growth*, 10 (4): 303–329.
- Kumhof, M., & Rancière R. (2010). Inequality, Leverage and Crises, *IMF Working Paper*. Washington: International Monetary Fund.
- Rajan, R. (2010). *Fault Lines: How Hidden Fractures Still Threaten the World Economy*. Princeton: Princeton University Press.
- Ravallion, M. (2009). *A Comparative Perspective on Poverty Reduction in Brazil, India and China*. Washington: World Bank.
- Rodrik, D. (1999). Where Did All the Growth Go? External Shocks, Social Conflict, and Growth Collapses. *Journal of Economic Growth*, 4(4): 385–412.
- Piketty, T., & Saez, E. (2003). Income Inequality in the United States, 1913–1998. *Quarterly Journal of Economics*, 118(1): 1–39.
- Акимова Т. А., & Мосейкин Ю. Н. (2009). *Экономика устойчивого развития: учеб. пособие*. М.: Экономика.
- Афанасьева О. В. (2012). Информационная открытость и проблема устойчивого развития. *Вопросы философии*, 5: 47–59.
- Степин В. С. (2003). *Теоретическое знание*. М.: Прогресс-Традиция.
- Хакен Г. (1993). *Синергетика*. М.: Мир.
- Тюгашев Е. А. (2010). Экономика устойчивого развития: возрождение ценностей традиционной экономики. *Новые исследования Тувы*, 2: 50–61.
- Фаррелл Дж. *Звезда Смерти Гизы*. М.: Эксмо, 2009.
- Бакшутев В. К. *Запад или Восток: кто ведет человечество?* Екатеринбург: Элита-Регион, 2009.