

Gross domestic product as the leading indicator of the level of economic security: a case of Ukraine

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Abstract In order to estimate the level of economic security, it appears worthwhile to analyse the dynamics of gross domestic product which represents a leading tool and a reliable indicator for this purpose. This paper examines the GDP of Ukraine in 1990-2017 as a whole and per capita in particular in comparison with other countries. The conducted analysis revealed a de-evolutionary tendency to reduce the scale of the strategic potential of sustainable development in Ukraine. It becomes clear that this process has a certain cyclicity. Four stages of cyclical stagnation of the Ukrainian economy were identified in course of our research. Our results demonstrate that it is worrying to reduce the duration of cycles. Moreover, we examined the graphic image of dynamics of changes in GDP per capita in 1990 - 2017 with a prognostic measure for a certain period of bias (in 2018-2021). The project interpretation of the revealed tendency testifies to the possible destruction of the economic system of Ukraine. It is sustained in general that there is a necessity of implementing systemic changes in the functioning of the national economy and state building.

1 Introduction

In the new economic and geopolitical conditions, the direction of the efforts of the national economy to ensure the transition of the state and its regions to sustainable economic development requires an analysis of previous achievements and misdeeds. Moreover, it requires and demands the description of miscalculations in of various strategies and, first of all, as a result of the implementation of economic reforms in the field of natural resources. All of the above might help the decision makers and stakeholders to determine the objective definition of the list of destructive factors and determinants of elimination of problems and obstacles in the direction of regeneration of economic dimensions of the functioning of the national social and economic system. Therefore, the study of economic crisis and the assessment of the positive and negative events that are currently occurring within our state education will allow us to establish a list of priority objects for localization of efforts for the development of strategic industries and productions.

This paper focuses on investigating the role of the gross domestic product as the leading indicator of the level of economic security. It is doing so using the example and the data from Ukraine, an economy in transition with cycles of stagnation.

The methodology of our study is based on widely known methods of studying the dynamics of GDP (Schumpeter 2017). However, we took into account existing research cycles in the development of economic systems. The interpretation of economic cycles in the literature ranges from the technical and/or economic to the political (Wallerstein 1984). Economic cycles are closely connected with financial crises (Ciutacu et al. 2009).

This paper is organised as follows: Section 2 describes economic cycles of development of the national economies. Section 3 focuses on the dynamics of changes for this basic and determinative macroeconomic indicator in comparative values. Finally, section 4 concludes the paper by summarising the main findings and providing some outcomes and implications.

2 Economic cycles of development of the national economies

For the analysis of the cycles of development of the national economy of Ukraine we have chosen the GDP indicator which characterizes economic opportunities for the wellbeing of the society. It is completed in comparative aspect with other countries. In order to achieve these research goals, it was used mainly the descriptive statistics and interstate comparisons provided mainly by official statistics offices both from inland and European Commission or Eurostat database.

Comparison of the dynamics of economic growth of individual countries of the world by the defining indicator of gross domestic product (GDP) per capita (see Figure 1) allows us to confirm that in Ukraine, recently, the de-evolutionary tendency to reduce the scope of the strategic potential of sustainable development has been affected. Last 10 years the GDP growth in Poland and Russia has sharply increased, but in Ukraine and Georgia the pace of economic growth is much lower. In a situation of global competition, such a trend is threatening.

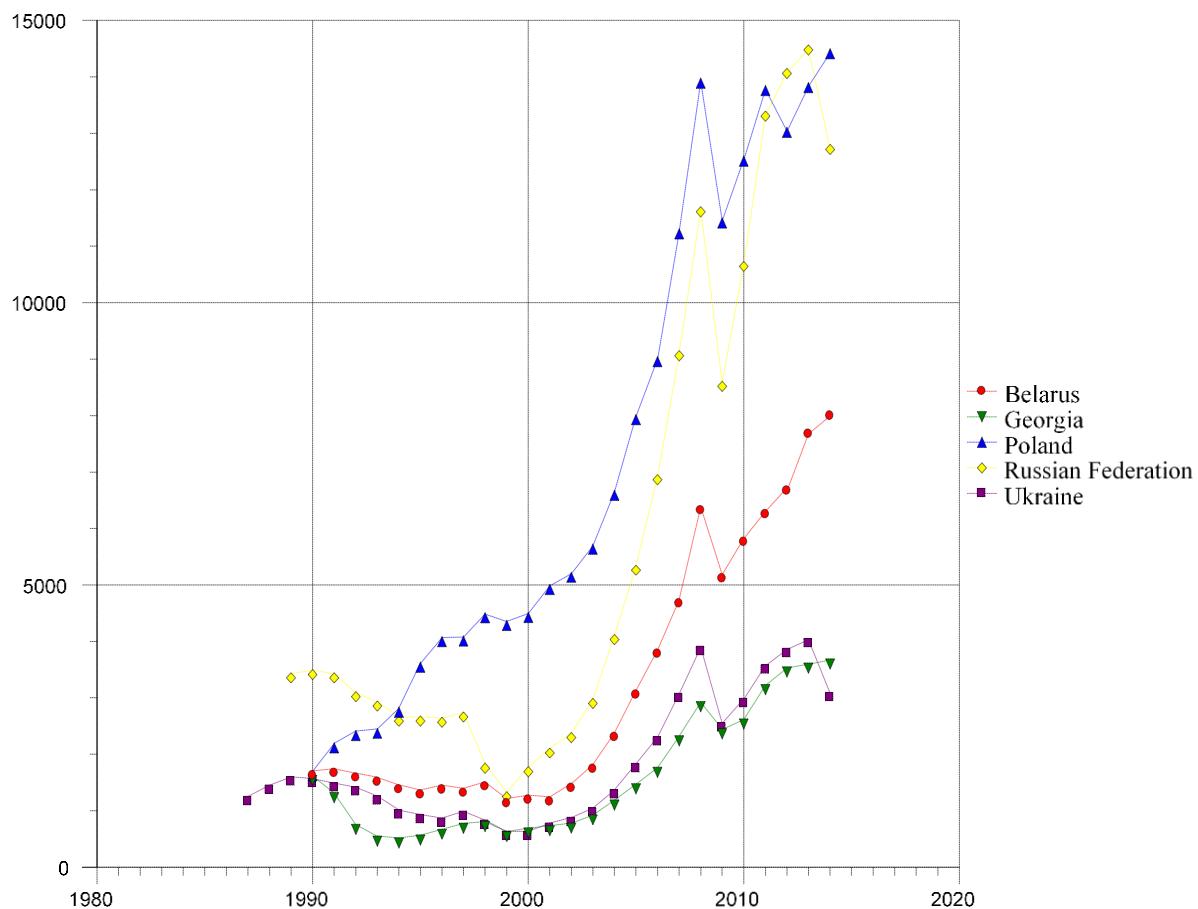


Fig. 1. Dynamics of gross domestic product per capita in Ukraine compared to individual countries of the world in 1985 - 2016, US \$ (according to data provided in sources Ministry of Economics of Ukraine)

Source: Own calculations based on Eurostat (2017)

Such trend would be more obvious if consider also shadow economy impact on GDP dynamics and some peculiarities of economic growth given in (Bilan et al. 2019; Mishchuk et al. 2018). However, comparisons of economic growth, based on other related indicators, e.g. GDP corrected by purchasing power parity, are also appropriate. The latest Index of Economic Freedom of the international organization The Heritage Foundation contains indicators of GDP and GDP per capita, taking into account purchasing power parity (Fig. 2). In 2017, this indicator in Ukraine was \$ 2205. In comparison to the leading countries of the world, the GDP of Ukraine is much lower, only 133 positions among the 187 countries of the world under study. Preliminary studies show that the production sectors can generate three different modes of fluctuation in the economy similar to the 3-to-7-year business cycle, the 15-to-25-year Kuznets cycle, and the 45-to-60-year Kondratieff cycle (Forrester 1976). Based on the heterodox economic theory of crises and cycles, scientists check the "empirical law of economic

dynamics" of the Mexican capitalist system according to the logic of the multiplier-accelerator theory that allowed us to study the dynamics of business cycles (Villarreal and Bielma 2017).

The current task is to identify the conditions, directions and factors that significantly obstruct the balanced development of the state, eliminate the ability of the national natural and social systems to meet the needs of the economy in products, first and foremost, the real (budget-forming) sector, impeding the growth of production capacities of industrial enterprises, technological growth and social security of sustainable development. The refusal to take into account and recognize the 'national achievements', highlighted through the prism of the main components of the concept of 'sustainable development' (economic, social, environmental and institutional) does not allow to establish the place of Ukraine in the world division of labor and to search and attract existing reserves for the direction of perspective angles of national economic system.

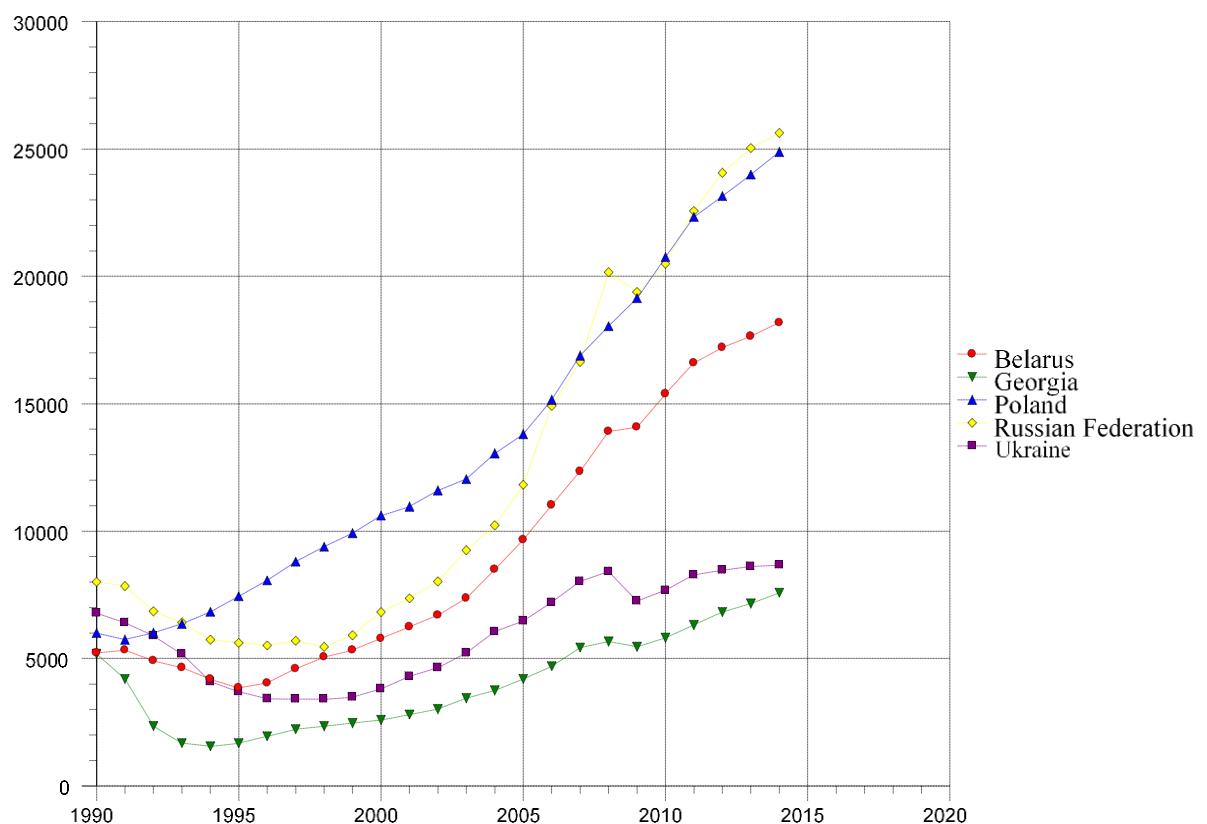


Fig. 2. Dynamics of the real gross domestic product per capita of individual countries of the world, taking into account purchasing power parity

Source: Own calculations based on Eurostat (2017)

Along with this, it becomes obvious that all the subjects of state and regional government which have to deal with the problems of socio-economic and socio-political development should not justify the low level of economic security of the state problems and obstacles acquired by other economies. It is a well-known fact that at the time of the proclamation of independence that Ukraine, the country possessed all the necessary prerequisites for the successful economic and social transformation into a highly developed state: the scale of the natural resource potential of a strategic nature (uranium, titanium sponge, coloured and alkali metals, iron ore, coal, etc.), as well as such intangible assets as powerful scientific and production potential, or high-quality labour resources.

Nevertheless, over the past twenty-six years, economic development had, to a greater degree, a declining character in the three stages of the implementation of the tasks set by the various levels of management. Thus, in particular, at present, World Bank experts state that such indicator is the worst result in the world in the last twenty-five years of development of world economic systems. Out of the 166 countries that released the full statistics of gross domestic product for the period 1991-2016, it has declined only in five countries. In addition, Ukraine in this list significantly outstripped all other countries, that is, Moldova (GDP declined by 29.0%), Georgia (decreased by 15.4%), Zimbabwe (by 2.3%), and the Central African Republic (by 0.94%).

3 Dynamics of changes and macroeconomic indicator in comparative values

Recently, state correlators have propagated a certain amount of growth. In addition, according to state ‘doctrinal’ development programs, slogans emphasize the possibility of increasing the volume of GDP by 4.0 – 5.0%. However, it should be noted that economic and statistical data are given in actual (real) prices, without any comparisons. This gives some distortion and not the objectivity of the assessments, and, consequently, is not the adequacy of the perception of the results of social and economic reforms.

In fig. 3 we present the real dynamics of changes for this basic and determinative macroeconomic indicator in comparative values (using US \$). This approach shows that changes and changes in the development of the national economic system are not three, but four stages of structural and dynamic changes in the retrospective dynamics of the macroeconomic indicators of the national economy.

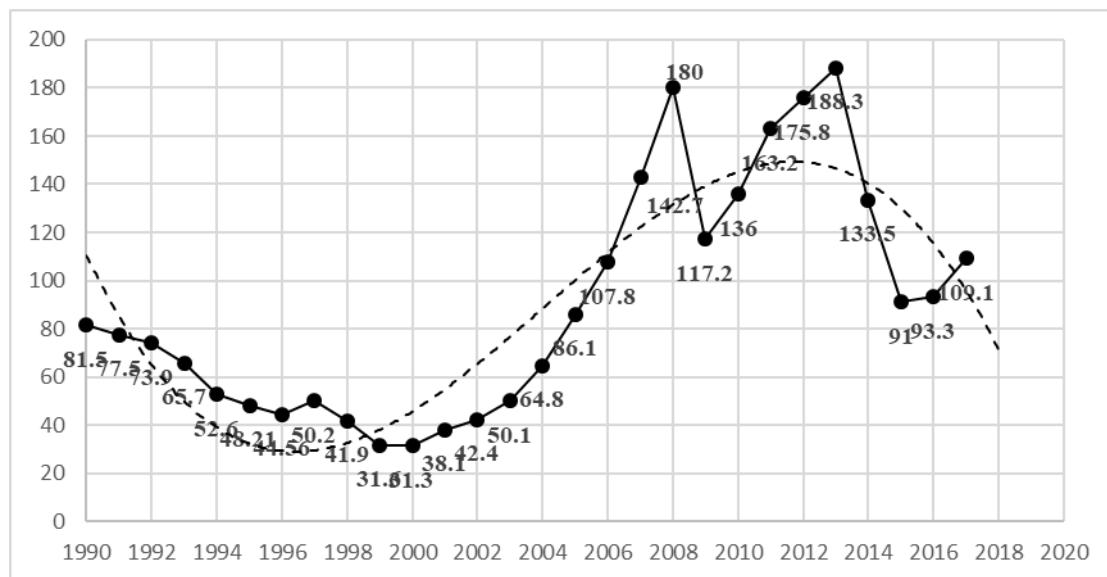


Fig. 3. Dynamics of GDP of Ukraine in 1990 - 2017 in comparative prices (billion US dollars)
Source: Own calculations based on Eurostat (2017)

The results prove that the spatial and temporal dynamics of the force transformations took place. Therefore, Stage 1 - This is 1990 - 2002 (12 years); Stage 2 - 2002 - 2008 (6 years); Stage 3 - 2008 - 2013 (5 years); Stage 4 is 2013-2017 (4 years). The reduction of cycles of cyclical stagnation of the effectiveness of management for each subsequent stage, the gradual emergence of crisis conditions and the depth of the fall leads to a decrease in the time to (may be considered) the final "fifth" excess during the next 3 years (that is, by the middle of 2020, and slippery. The model confirms the confidence of researchers in this driving and destructive dynamics.

The worst conditions and a sharp fall occurred in 1990-2002 when Ukraine lost most of its economic potential. Later, from 2009 to 2013 - there was a certain stabilization of economic development, however, in the future - continuous destructive fluctuations, up to this time. Unfortunately, determining the cyclical nature of socio-political events and shifts, one can conclude that the economic cycle of the functioning of our state education is coming to the end. The reasons for this, as evidenced by the economic theory and practice of public administration is enough.

4 Conclusions

Overall, it seems that the deep social and political, economic and national and state changes in the EU countries and in the former socialist countries of Central and Eastern Europe have an objectively more complex range of consequences and problems of further development. One of them is the need to adjust the scale of the strategic potential of the economies of the countries of Central and Eastern Europe, both in accordance with the political realities of the post-industrial period of the functioning of the world economic system, and in accordance with the emergence of a new balance of power in Europe and the world as a whole.

For the latter is determined by the destruction of the bipolar system of geostrategic and geo-economic confrontation along the ‘East-Wes’ axis with a gradual reformatting and, accordingly, the formation of a polycentric and multi-level (multidimensional) system of interstate relations (situational), including a much more complex range of social and political and business sympathy and antipathy. Along with this, one should not

refuse to perceive the contemporary efforts of various state entities in the use of military formations to solve their own socio-economic, natural resource and socio-political problems. Thus, the fact that the category of "armed struggle" can become not only the subject of military but also economic science is beyond doubt, because this kind of "resistance", in its traditional sense, has recently provoked itself in the world's socio-political space.

Moreover, the problems of the probability of the use of military force within the economic, technological, migration, demographic struggle (including peacekeeping activities of the armed forces, overcoming extreme situations of natural or man-made origin, limiting destructive migration flows, verification activities of military specialists to raise the level of information security of economies, combating drug trafficking, etc.) can have a systemic awareness of the traditional dialectical methodological principles and some useful ü their use in the new realities of Ukraine.

All in all, the overcoming of existing trends is possible only as a result of the implementation of systemic reforms, which are aimed at appropriate reforms (in terms of decentralization, investment, reform of state and regional authorities, police, prosecutors, judges, etc., creation of new departments and ministries, anti-corruption bodies, etc.). At the same time, the effective methodology allows adequately to cover the latest social and political problems by distinguishing the efficiency of administrative decisions at all levels in the plane of communication consolidation in order to increase the level and quality of life of the population, the content of which consists in feasible changes and transformation of the surrounding socio-political space of our state in the context of ensuring its transition to sustainable development.

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