JOURNAL
OF EUROPEAN ECONOMY
Vol. 19. № 4 (75). October–December 2020
Publication of West Ukrainian National University

European Economic Integration

Olena BORZENKO,
Tetyana BURLAY

SOCIO-ECONOMIC DIVERGENCE OF UKRAINE AND THE EU: NEW CHALLENGES

Abstract

The research characterizes current dynamics of Ukraine's socio-economic development in the process of its European integration in view of the Association Agreement with the European Union concluded in 2014. The comparative assessment of the development of Ukraine and individual EU countries by the criteria of GDP per capita is given. The recent increasing tendency of divergence of the socio-economic systems of the European Union and Ukraine is highlighted, describing the institutional phenomenon of the divergence trap as a result of the synthesis of poverty and non-convergence traps. The risks of Ukraine's falling into the divergence trap, which are related to the effect of several major internal factors are outlined. The article addresses such factors as Ukraine's adoption of conditions for restructuring a part of the national debt in 2015; unacceptably low levels of national economy capitalization in the context of convergence; galloping labour migration from Ukraine, which accounts for significant loss of domestic

© **Olena Borzenko, Tetyana Burlay, 2020.**

Borzenko Elena, Doctor of Economic Sciences, Professor, Chief of Section for International Financial Research, Institute for Economics and Forecasting of NAS of Ukraine, Kyiv, Ukraine. ORCID: https://orcid.org/v0000-0002-1017-5942 Email: slozko2003@ukr.net
Burlay Tetyana, Doctor of Economic Sciences, Associate Professor, Senior Researcher of Department of Economic Theory, Institute for Economics and Forecasting of NAS of Ukraine, Kyiv, Ukraine. ORCID: https://orcid.org/0000-0003-4530-9151 Email: btv2008@ukr.net

GDP growth potential; and small value of innovation and technology in the macroeconomic development of the state.

Key words:

socio-economic divergence; limiting growth factors; divergence trap; Ukraine; EU.

JEL: F63, O43, O47, P27, P52.

Introduction

With post-industrial globalization and intensified global turbulence, –, a new global economic crisis unfolded under the influence of the COVID-19 coronavirus pandemic in March 2020, which is projected to be more profound and protracted than the global financial crisis of 2008-2009. New threats and challenges are emerging for transformational countries, including Ukraine. This requires involving mechanisms that would enhance their international competitiveness and development potential. Searching for such mechanisms that would be an effective solution comes in the form of integrated political and economic unions which guarantee appropriate instruments of political, institutional, financial and economic support to national economies; increase their resilience to external shocks; and simplify intra-integration interstate flows of resources, including, technological and human potential.

Development of the European Union before the global crisis of 2008-2009 shows that socio-economic convergence is the most effective mechanism for achieving full integration benefits, strengthening international competitive position, and stimulating development of the participating countries (Gill & Raiser, 2012) which provides for convergence of the defining parameters of their development towards higher standards and norms set by the leaders. European Foundation for the Improvement of Living and Working Conditions (Eurofound) noted high urgency of enhancing the convergence of its member states for the EU's current agenda, especially in the field of employment and social development. Thus, the Eurofound established the EU Convergence Monitoring Hub at the end of 2018. According to their estimates, serious obstacles to these processes are income inequality of EU citizens and precarization of European labour markets (Eurofound, 2018).

In the aftermath of the 2008-2009 global crisis, the convergence processes in the European Union slowed down under the influence of its unsolved financial and economic consequences and unresolved internal systemic problems that have gripped the institutional, debt, migration, social and other spheres. Instead, the gap between its member countries is widening across a range of indicators, meaning that socio-economic divergence is actually taking place. It is quite clear that under the influence of the spread of the pandemic coronavirus, which since March 2020 has been simply devastating the economy of each of the EU member states, the processes of divergence between them will deepen significantly.

It is important to emphasize that the divergence of European economies threatens the very existence of the EU integration project, forcing its leaders to seek more effective approaches to public policy at national and pan-European levels (Palier et al., 2018), among them modernization of the European cohesion policy which aims to promote inter-country and regional convergence in the European Union.

Ukraine ratified the Association Agreement between Ukraine and the EU in September 2014 (hereinafter referred to as the Association Agreement), and in February 2019, constitutionally enshrined a strategic course for full membership in this association. Now, ensuring socio-economic convergence with the European Union plays an extremely important role in the European integration context. This is, first of all, evidenced by the practice of post-socialist countries of Central and Eastern Europe (CEE) which have already joined the EU. Their convergence with the more developed countries of the united Europe has ensured significant acceleration of their socio-economic dynamics and full European integration. It should be borne in mind that the readiness of these CEE countries to gradually integrate into the single socio-economic space of the EU and to enter the convergence process with main EU member countries was directly influenced by the results of their reforms. Practice has shown that deeper and better changes are characteristic of those CEE countries where Institute of the State is more sophisticated and sustainable (Heyets, 2019).

Therefore, the task of providing Ukraine with socio-economic convergence with the European Union is a priority in the context of its strategic European integration development. However, given the current realities, this task is difficult to accomplish and requires considerable institutional, macroeconomic and societal changes. First and foremost, the trend of divergence between the EU and Ukraine's development dynamics, which has been steadily increasing in recent years, must be broken. Obvious signs of the increasing divergence of their socio-economic systems (above all, by traditional convergence criteria of population welfare and productivity) have been observed since 2014, marked by the emergence of the military conflict in Donbass and the deep crisis in the economic and social spheres of Ukraine.

Ukraine has been implementing the European integration reforms and the Government-approved Action Plan for Implementation of the Association Agreement with the EU during the six-year period. Instead of the expected convergence with the EU participating states, Ukraine has emerged as the absolute leader in terms of poverty, corruption and labour migration abroad, which is not inherent in any of the EU member states. This testifies both to the existing significant shortcomings and fragmentation of Ukraine's national policy which impede its Europeanization, and to the impact of serious factors of socio-economic and institutional divergence between Ukraine and the EU, which will be discussed in more detail below.

Convergence and Divergence of Socio-Economic Systems: A Brief Literature Review

As noted above, in this study, the term *socio-economic convergence* means assimilation of the defining parameters of development of two or more outsider states in the direction to higher standards and norms of the leaders. The opposite in content is the process of socio-economic divergence, which, accordingly, provides for growing differences of these parameters.

The history of the formation of convergence and divergence concepts in the social sciences began in the mid-1940s. A prominent Russian-American sociologist and cultural scientist Pyotr Sorokin (1964) considered convergence a process of mutual infiltration and gradual assimilation of institutional features of socialist and capitalist societies, personified, respectively, by the USSR and the USA, which would end with emergence of a new socio-cultural integration.

Robert Solow (1956) and Trevor Swan (1956) made significant contributions within the framework of the neoclassical theory of economic growth. In their well-known neoclassical model, in particular, Solow-Swan considered the hypothesis of convergence of economies to the necessary conditions and specifics of this process when entering the steady-state growth path.

During the 1950s–1970s, the concept of convergence of socio-economic systems was developed by other prominent representatives of sociological and economic ideas, such as Talcott Parsons, Walt Rostow, Peter Drucker, John Galbraith, Jan Tinbergen, and a number of other scholars.

Nobel laureate, econometrist J. Tinbergen (1960) made a forecast of the convergent synthesis of capitalist and socialist systems into a single optimal social order formed by combining certain elements of the efficiency of the economic system provided by capitalism and social equality typical of socialism. A prominent economist–theorist J. Galbraith in his work *The New Industrial Society* (1967) emphasized «the importance of the trend to convergence of industrial societies». A famous sociologist-theorist T. Parsons in his work *The System of Modern Societies* (1971) noted the validity of Max Weber's predictions about the potential convergence of administrative-planning and market economic models in the form of bureaucratization of the capitalist economy.

Later, in the 1980s, the issues of convergence of socio-economic systems were explored (and often from a critical standpoint) by the founders of the concept of post-industrial society: Alain Touraine, Zbigniew Brzezinski, Daniel Bell, and Alvin Toffler.

In the early 1990-s due to the socialist system collapse, the interest in the concept of convergence of social systems was lost and instead the attention of a large number of scholars focused on the problems of transition of post-socialist countries from the planned system to a market economy, as well as global expansion of convergence processes. Thus, the famous econometrist Xavier Sala-i-Martin (1994), exploring long-term convergence processes, justified the existence of a certain «natural rate of convergence» at 2% per year. William J. Baumol, Richard R. Nelson, and Edward N. Wolff (1994), on the basis of their empirical research, proved the existence of «club convergence» which includes only industrial and transformational countries, since, unlike countries of the Third world, they have the necessary potential for economic convergence – a starting level of human capital that enables creation or adaptation of the latest technology and knowledge.

An American sociologist Alex Inkeles (1999) proposed an original approach to assess the capacity of a national system to converge, containing such aspects as production methods and resource utilization models; institutional forms; social relations models; system of social attitudes, values and behaviour; and system of political and economic control. The works by Danny Quah, *Empirics for Growth and Distribution: Stratification, Polarization, and Convergence Clubs* (1997) and Lant Pritchett's *Divergence, Big Time* (1997) and their studies on the socio-economic divergence of countries have become notable.

According to Jonathan Temple and Philip Bagnoli (2006) current structural feedback mechanisms supporting economic convergence and growth have several major components, namely technology; market access; international investment flows; human capital; economic institutionalization; intra-regional development; financial parameters; prices for equipment and energy; and environmental efficiency. It is noteworthy that the Nobel laureate Michael Spence emphasizes the key importance of structural optimization of the economy in the course of convergence processes in his work *The Next Convergence. The Future of Economic Growth in a Multispeed World* (2011).

A number of modern researchers are focused on the study of convergence problems of transition economies, especially in the context of European integration processes. In particular, as estimated by Vienna Institute for International Economic Research (Gligorov et al., 2017), the socio-economic convergence of CEE and EU countries in general will probably take more than 30-35 years, if one considers the beginning of this process in 1995. Assuming that Central and Eastern European EU member states will grow at a GDP per capita average of 2.8% annually, by 2026 none of these countries will be able to reach the European average per capita GDP.

Bruno Palier, Allison E. Rovny, and Jan Rovny (2018) consider the divergence process at the *centre-periphery* level in the EU, considering a *centre* Northern and Central European countries that were able to recover positive economic and social dynamics after the 2008-2009 crisis, and referring as *periphery* mainly to the countries of Southern and Eastern Europe, as well as to Ireland, where such recovery has not occurred. According to scientists, the divergence between these two groups of states is caused by a difference in orientation and potential of national production: the countries of the centre are export-oriented and highly competitive, while the periphery countries are driven by domestic demand and wage growth through fiscal mechanisms, rather than productivity.

EU Member States' Divergence as a Challenge to the European Integration Project

For more than 60 years, the pillar of the European integration project has been supported by processes of socio-economic convergence, i.e. the convergence of key development parameters of EU member states with a focus on leaders. The Treaty of Rome, which normalized creation of the European Economic Community in 1957 (transformed into the European Economic and Monetary Union – EMU in the 1990s), identified among its main objectives promotion of a high level of competitiveness and convergence of economic indicators, improving the standard of living and quality of life, the economic and social cohesion and solidarity of the Member States.

In 2015, EU leaders recognized that ensuring the economic, social and structural convergence of the euro area countries was the only effective mechanism for the next ten years to strengthen the EMU of a united Europe (Juncker et al., 2015). Implementation of this mechanism, as defined by the Rome Declaration signed by the European leaders in March 2017, should bring about the completion of the EMU and contribute to transformation of the European Union into a *Union where economies converge.*

In order to make the pan-European economy more integrated, competitive, resilient and secure in the future, the need to enhance socio-economic convergence of EU countries is emphasized in the *White Paper on the future of Europe.*

Reflections and scenarios for the EU27 where the European Commission has presented alternative scenarios for development of the European Union (excluding the United Kingdom) for the period up to 2025 (European Commission, 2017).

Recognition of convergence processes as a priority of EU policy and the basis of the European integration project itself has further focused attention on a number of contradictions and problems in ensuring the socio-economic convergence of the participating countries emerging in the last two decades. According to the World Bank, negative trends in weak labour productivity dynamics, rising unemployment, deepening demographic crisis, as well as fiscal and trade imbalances have emerged in the EU since the early 2000s and have gained the threatening scale after the global financial-economic crisis, thus necessitating the modernization of the European «convergence machine». Technological changes are considered the main factors slowing down the old «convergence machine», as new technologies provide more opportunities for highly skilled workers and firms. Therefore, EU countries and regions that do not provide high technological level of firms and high vocational educational levels of their population do not converge well enough with more developed countries and regions of united Europe (Ridao-Cano & Bodewig, 2018).

The European Union failed to effectively address the accumulated institutional, macro-financial and social problems coupled with the negative impact of the 2008-2009 global crisis. This led to a prolonged post-recession and a steadily widening gap between member states, that is, emergence of clear tendencies of socio-economic divergence in the European Union.

Thus, according to Eurostat data, in 2018, according to real GDP per capita estimated by the PCA, the gap between the richest and poorest EU countries was 5.2 times. If the corresponding figure of Luxembourg (€80.1 thousand) relative to the European level (€30.9 thousand) was 259%, Bulgaria's equivalent (€15.5 thousand) was only 50%.

In 2018, the proportion of population at risk of poverty and social exclusion ranged from 32.8% in Bulgaria, 32.5% in Romania and 31.8% in Greece, to 16.2 in Slovenia and 12.2% in the Czech Republic, i.e. the gap between the EU countries reached 2–3 times.

There was also a significant difference between social inequality indicators (quintile income-sharing ratios calculated as income ratios of 20% of the richest and 20% of the poorest citizens): while in 2017, in the Czech Republic, Slovakia, Slovenia and Finland this ratio was 3.4–3.6 times, in Greece, Lithuania, Spain and Romania it was 6.1–7.1 times, and in Bulgaria it reached 8.2 times (European Commission, 2019).

According to László Andor, European Commissioner for Employment, Social Affairs and Inclusion (2010–2014), in post-crisis 2011, the still fragile EU economy re-entered a recession accompanied by capital and workforce flight from less stable participating countries to more stable ones, which led to their further financial and economic polarization in terms of competitiveness, production dynamics, labour productivity, employment and unemployment, and social inequality. In fact, the EU is facing the problem of divergence in full swing, which could be counteracted within the EMU, for example, by introduction of a financial risk-sharing scheme and a universal unemployment insurance system (Andor, 2014).

Other European experts consider financial recipes for counteracting socio-economic divergence as one of the key challenges for today's European integration project. They give priority to reforming the EU and euro area budgetary system and fiscal rules, establishing the Banking Union, expanding and integrating capital markets, while only tentatively pointing out the importance of tackling migration, including labour, and social inequality (Demertzis et al., 2019). This approach seems somewhat limited, since its implementation will potentially help overcome divergence trends within the euro area, but not the European Union as a whole.

Experts at McKinsey Global Institute approach EU divergence issues more systematically. They identify 6 megatrends that can significantly enhance socio-economic divergence by 2030, both within and between member states, and distort the inclusive growth model declared as a priority for long term development of united Europe. These megatrends are: 1) demographic aging; 2) digitization; 3) increased global competition; 4) migration; 5) climate change and environmental issues; 6) geopolitical changes (Bughin et al., 2018). It is obvious that the list will be altered by the shocking impact of the COVID-19 pandemic, which has been felt since the beginning of March 2020, and the consequences of which cannot yet be estimated accurately, although for most countries they can be considered catastrophic without exaggeration.

Assessment of Convergence / Divergence Processes between the EU and Ukraine

Experts of the Institute for Economics and Forecasting of the National Academy of Sciences of Ukraine, based on econometric methods, have estimated the dynamics of the per capita income indicator (GDP per capita) which testifies to the emergence and strengthening of the socio-economic divergence trend between Ukraine and the EU in recent years. According to the International Monetary Fund (2019), Ukraine's GDP per capita increased 1.5 times in 1991–2016, but peaked in 2013 ($3,969), then fell significantly and could return to these positions only in a decade, in 2022 (Table 1).

Table 1

GDP per capita dynamics of the EU and Ukraine for 1991–2022 at current prices, USD

Country	1991	2000	2010.	2013	2016	2018	2022
Denmark	27 053	30 799	58 177	61 326	53 774	60 692	66 823
France	22 517	23 313	42 249	44 105	38 205	42 878	47 024
Italy	21 799	20 113	35 658	35 220	30 824	34 260	36 279
Czech Republic	n.a.	5998	19 831	19 913	18 506	22 850	26 875
Hungary	3350	4628	13 074	13 645	15 531	15 924	20 278
Poland	2101	4476	12 602	13 777	13 823	15 431	19 892
Romania	1249	1670	8212	9568	10 757	12 285	15 415
Bulgaria	224	1614	6744	7696	7496	9267	11 846
Ukraine	1490	664	2983	3969	2199	2963	4228
Ratio of indicators of Ukraine and:							
France, %	6.6	2.8	7.1	9.0	5.8	6.9	8.9
Italy, %	6,8	3,3	8,4	11,3	7,1	8,6	11,7
Poland, %	70.9	14.8	23.7	28.8	15.9	19.2	21.3

International Monetary Fund. (2019). *World economic outlook database* (April 2019) [Data set]. https://www.imf.org/en/Publications/WEO/weo-database/2019/April

The comparative assessment shows that the gaps in per capita income of Ukraine and individual EU countries narrowed from 2000 to 2013. Then, Ukraine had a leap in the poverty level and, as of 2018, its GDP per capita amounted to only 6.9% of the same indicator of France, 8.6% of Italy and 19.2% of Poland. The table data show the existing divergence between Ukraine and the EU countries representing Western and Eastern Europe, basic and newly integrated countries of the European Union, in 2013-2018. The assessments forecast suggest that the EU-Ukraine divergence process will continue in 2019-2021, and given the shock impact of the COVID-19 pandemic, even rapidly accelerate.

Similar trends are observed when comparing the aforementioned convergence criterion (GDP per capita) of both Ukraine and the EU-28, as well as Ukraine and each of the EU Member States.

Statistical and mathematical calculations (using the Eviews 8.0 package) have been carried out with relevant data on development of Ukraine and the EU-28 in general and its individual member countries to provide more comprehensive understanding of the problems and specifics of the developing convergence (divergence) processes between socio-economic systems of Ukraine and the EU. The data from the State Statistics Service of Ukraine and Eurostat for the retrospective period of 2000–2017 were used for the calculations. 2000 was chosen to be the reference point as the date of exit of the Ukrainian economy from the long transformation crisis of the 1990s, its stabilization and resumption of growth, which is a necessary prerequisite for convergence trend formation. The methodological basis of the calculations was the tried and tested by econometric approaches (Libman, 2006; Pelipas, 2017). Given the availability and comparability of data of the State Statistics Service of Ukraine and Eurostat, two types of convergence processes in the interaction between Ukraine and the EU were evaluated:

1) *β-convergence* which characterizes the rate of convergence of more and less developed economies to equilibrium and implies higher average growth rates for less developed ones;

2) *σ-convergence* which implies that the gap between the parameter development of the converging economies is steadily decreasing (in the mathematical sense it means a decrease in the variance or variability of the respective indicators of these economies).

In the first case, the existence of β-convergence or divergence was determined by econometric modelling based on a log-linear regression of GDP per capita (base prices) estimated in euro (for Ukraine, the corresponding data were adjusted takng into account the average annual official euro exchange rate by the National Bank of Ukraine). The explanatory variable of the regression dependence is the level of the mentioned indicator in 2000 (the starting point of the period), and the dependent one is the average annual growth rate. The convergence processes were evaluated for two cases: Ukraine and EU-28 in general; Ukraine and the EU-13 – newly integrated EU member states that received membership in 2004–2013. Taking into account the marked crisis downturn and weak GDP recovery of Ukraine in the latter period, two convergence (divergence) periods of 2000–2017 and 2014–2017 were chosen for assessment (Table 2).

According to the Table, convergence between the Ukrainian and European economies occurred in 2000–2017 (since the β coefficient is negative, whereas in case of divergence it has a positive value). However, it was very weak, since the modelled relationships are statistically insignificant and the model is predictably unreliable – the determination factor is only 43%, and models with a similar parameter of at least 70% are usually considered reliable. In the light of the calculations, the existence of weak convergence between Ukraine and the newly integrated EU countries (most of which are post-socialist CEE countries) over the same period is explained by the *common institutional past* of their economic models, as compared to the countries of Western and Northern Europe.

Table 2

Main Results of Modelling of β-convergence (divergence) between Ukraine and the EU for 2000–2017

Period, years	Ukraine and the EU-28			Ukraine and the EU-13		
	β-coefficient (t-statistics value)	R^2 regression model (reliability,%)	Convergence / divergence type	β-coefficient (t-statistics value)	R^2 regression model (reliability,%)	Convergence / divergence type
2000–2017	–0.0198 (–4.53)	0.4327 (43.3)	Very poor convergence	–0.0268 (–4.11)	0.6015 (60.2)	Weak Convergence
2014–2017	0.0532 (9.67)	0.7762 (77.6)	Clear divergence	0.0471 (2.81)	0.4399 (44.0)	Weak Divergence

Note: Econometric calculations are made with 95% statistical significance of model coefficients. The formalization of the calculations was carried out in Libman (2006).

The 2014-2017 period is characterized by signs of β-divergence, only in the case of Ukraine and the EU-28 it is absolutely clear (the model is highly reliable at the level of 78%) and in the case of Ukraine and the EU-13 it is weak (the model is reliable only by 44%). The main macroeconomic reason for emergence of divergence tendencies is the significant (over 16%) decline of the Ukrainian economy in 2014-2015. The mentioned econometric models are built for analytical, not prognostic purposes. Therefore, they are quite suitable for further clarification of the specifics of divergence (convergence) processes between Ukraine and the European Union.

Key Endogenous Determinants of Socio-Economic Divergence / Convergence Processes at EU-Ukraine Level

The above results of econometric modelling suggest that if the negative social dynamics and socio-economic priorities of the state remain unchanged, *Ukraine risks falling into a divergence trap* in the process of European integration. This trap can be considered as a synthesis of two well-known cases in economics: a *poverty trap* and *non-convergence trap*. In this particular case, the trap of divergence is a theoretical construction that characterizes the macroeconomic and institutional inability of Ukraine to ensure convergence over a period of time, and its divergence with the European Union due to the impact of various constraints on economic growth.

In a more general case, a country already trapped in poverty is at risk of *divergence trap*, unable to converge with more developed countries because of its economic growth constraints. Considering that the developed countries demonstrate absence of growth restraints and accelerated growth pace, socio-economic divergence will occur between less and more developed countries.

The experts of the Institute for Economics and Forecasting of the National Academy of Sciences have substantiated five main internal factors that consolidate the long-term divergence of Ukraine and the EU and, in fact, cause extremely high risks of Ukraine's falling into the divergence trap (Burlay, 2018).

First, *a debt factor* directly related to Ukraine's adoption of conditions for restructuring part of the national debt significantly limits its GDP growth rate (Cabinet of Ministers of Ukraine Resolution No. 912 of November 11, 2015 (as amended) «On the Legal Acts in 2015 Dealing with Public and State-Guaranteed Debt for Its Restructuring and Partial Write-Off». This document stipulates that during the 20-year period – from May 31, 2021 to May 31, 2040 – if the annual GDP of the country reaches $125.4 billion, Ukraine is obliged to pay the restructured part of the debt on government derivatives under the following conditions:

- if annual GDP growth is less than 3%, no payments will be made;
- if annual GDP growth is between 3 and 4%, creditors will be paid 15% of the excess of 3% growth threshold;
- if the annual growth of real GDP exceeds 4%, then 40% of the amount of such excess + payment of the previous option is paid (that is, another 15% of the value corresponding to 1% increase of real GDP).

Second, *capitalization* factor – in the context of ensuring convergence with the EU, Ukraine is characterized by an unacceptably low level of the economy capitalization, which is only 15-16% of GDP, while in order to enter the modernization regime it should approach 25% of GDP.

Third, *innovation and technological factor* has a chronically insignificant weight in the country's macroeconomic development and, according to the forecasts of the Institute of Economics and Forecasting of the National Academy of Sciences of Ukraine, causes preservation of its significant GDP gap in the near future – at the level of 20-25%.

Fourth, *factor of labour migration from Ukraine* – the scale and steadiness of this phenomenon have led to significant losses in the country's domestic GDP growth potential.

Fifth, *demographic factor* – the deepening demographic crisis in the country has a significant divergence potential. According to UN estimates, Ukraine will be among five countries with the highest rates of population decline by 2050.

According to experts, conceptual approach of state regulation aimed at minimizing risks of Ukraine falling into the trap of divergence should be based on transition of the country to an endogenously oriented model of development which provides for the decisive role of domestic final demand, expansion of the internal market, and strengthening of the internal market.

New COVID-19 Pandemic Challenges for Ukraine-EU Divergence

The global spread of the coronavirus pandemic is raising new challenges to overcome the divergence of Ukraine and the EU. In our opinion, at least two new challenges of this kind can be distinguished.

1) Increasing disintegration trends in the EU after the pandemic is over. A ringing example is Italy, which was at the epicenter of the pandemic in Europe and has suffered the most from it. In this extremely difficult situation, Rome has asked to use EU civil defense mechanisms for emergency supplies of medical equipment and personal protective equipment to Italy, but neither Brussels nor EU Member States have responded to this call. Moreover, Germany and France have restricted exports of hygiene masks, and the Czech Republic and Poland have outrageously «intercepted» batches of masks intended for the Italians. «This Europe has become zero. There is no brotherhood, no solidarity. When Italy needs it, Europe disappears», said Italian Eurosceptic ideologist Matteo Salvini in connection to this (Iskenderov, 2020). Not surprisingly, Italian Prime Minister Giuseppe Conte has rejected a draft joint statement by EU summit participants held on March 26, 2020, regarding the situation with the coronavirus pandemic, calling it insufficient and insisting on a much more decisive EU response to the crisis (Romanov, 2020).

The COVID-19 pandemic has made it clear that there is no mutual assistance, solidarity, and European cohesion among EU Member States in an emergency situation. Moreover, over the past 60 years, the European Integration Project has failed to ensure convergence and unify the educational, medical and social systems of its Member States.

2) A pandemic caused by a macroeconomic downturn, which is projected to be of considerable magnitude and duration. The problem is that divergent trends in the EU may be exacerbated by probable internal and external shocks, some of which have already become severe. The global coronavirus pandemic declared by WHO on March 11 this year has begun to weaken most economies in the world, pushing them to further recession. According to the European Commission, the shock effect of this factor will cause a decrease in production in the EU by 2.5% compared to the situation without the COVID-19pandemic. Thus, instead of the previously expected real GDP growth of the European Union by 1.4%, it is projected to decline by more than 1.0% at the end of 2020 (The Brussels Times, 2020).

The depth of the recession in the EU may be even more significant given that the significant losses of Italy and France's from COVID-19, two of the largest economies in Europe, have not yet been estimated. Germany's economy, the main locomotive of the EU, according to the forecast of the Kiel Institute of the World Economy (2020), may decline from 4.5% of GDP in 2020 (provided that the pandemic declines by the end of April) to 8.7 % of GDP (pandemic will only begin to wind down in June this year), which will have negative effects on the entire European economy, as well as trading partner countries'.

In the context of convergence-divergence processes, a significant increase in divergence between Ukraine and the EU should be expected, given that the economic downturn in Ukraine will be much larger than in the EU. Already on March 20, 2020, that is, only three days after the introduction of the national quarantine regime, the Chamber of Commerce and Industry of Ukraine reported that about 600-700 thousand small and medium-sized enterprises were shut down due to quarantine. These enterprises employ 3.5-4.0 million Ukrainian citizens. Experts predict that the shock impact of the COVID-19 pandemic could cause a rapid – at least 15% – decline in the real GDP of Ukraine in 2020.

Conclusions

Approaching the prospects of real European integration of Ukraine, as well as achieving the ambitious goals of the Association Agreement between Ukraine and the European Union signed in 2014, first of all, requires ensuring their socio-economic convergence, i.e. convergence in the relevant parameters in the institutional, economic and social spheres. In recent years, the ongoing military conflict in Donbass, negative consequences of the deep crisis of 2014-2015 in the economic and social sphere of the state, intensification of destruction trends (corruption, in particular), deepening deindustrialization, poor state management efficiency and other factors, formed a clear trend of increasing divergence of socio-economic systems of Ukraine and the European Union – above all, by such criteria as the level of welfare of the population and the level of labour productivity.

This issue is further exacerbated by powerful factors reinforcing the divergence of Ukraine and the EU in the long run and, in fact, highly increasing risks of Ukraine becoming trapped in divergence. Scientists have substantiated the following factors: debt, capitalization, innovation-technological, demographic, and external labour migration.

In order to minimize the negative impact of these factors and avoid Ukraine's divergence trap in the process of its European integration, it is necessary to implement an appropriate policy of state regulation aimed at ensuring the transition of the country to an endogenously oriented model of socio-economic development, which assumes that the domestic final demand, expansion of the internal market, and increased domestic competition must be decisive for the economic growth dynamics in the long run.

The conceptual approaches of state policy for avoiding the divergence trap by Ukraine include ensuring efficient institutional transformations, accelerating innovation and investment modernization and structural and technological upgrading, enhancing social protection and improving the quality of life of the population, overcoming the national debt dependency, demographic trends, and accelerated labour migration from Ukraine.

In order to reduce the divergence gap between Ukraine and the EU it is important to stem the spread of the COVID-19 pandemic, which began in March 2020, and to overcome the negative effects of the global socio-economic crisis caused by it. Ukraine is projected to see a much larger reduction in real GDP than the EU, which is why it must make additional efforts to accelerate the recovery of economic growth, high pace of which is a prerequisite for overcoming its divergence with the EU.

References

Andor, L. (2014, October 7). *Countering divergence within the Economic and Monetary Union* [Lecture notes]. European Commission Press Corner.

Bagnoli, Ph. (2016). Structural feedback mechanisms supporting convergence: Some observations [Power Point Slides]. *OECD Workshop «Global Convergence Scenarios: Structural and Policy Issues».* OECD.

Bughin, J., Mischke, J., Tacke, T., Hazan, E., & Sjatil, P. E. (2018). *Testing the resilience of Europe's inclusive growth model*. McKinsey Global Institute.

Burlay, T. (2018). Eurointegration of Direction and the Divergence Trap of Ukraine. In M. Bezpartochnyi (Ed.), *Transformational processes the development of economic systems in conditions of globalization: Scientific bases, mechanisms, prospects* (Vol. 2, pp. 283-295). ISMA University.

Demertzis, M., Sapir, A., & Wolff, G. B. (2019). *Promoting sustainable and inclusive growth and convergence in the European Union* (No. 2019/7). Bruegel Policy Contribution.

Eurofound. (2018, December 7). *EU convergence monitoring hub*. https://www.eurofound.europa.eu/data/convergence-hub

European Commission. (2017). *White paper on the future of Europe: Reflections and scenarios for the EU27 by 2025*. European Comission.

European Commission. (2019). *Eurostat* [Database]. https://ec.europa.eu/ eurostat/data/

Galbraith, J. K. (1967). *The New Industrial State*. Houghton Mifflin Company.

Gill, I. S., & Raiser, M. (2012). *Golden growth: Restoring the lustre of the European economic model*. World Bank Publications.

Gligorov, V., Grieveson, R., Havlik, P., Podkaminer, L., Astrov, V., Dobrinsky, R., Hanzl-Weiß, D., Hunya, G., Leitner, S., Mara, I., Pidnyuk, O., Richter, S., & Vidovic, H. (2017). *CESEE Back on Track to Convergence* (No. Autumn2017). The Vienna Institute for International Economic Studies, wiiw.

Heyets, V. (2019). Social quality in a transitive society: The role of the state. *International Journal of Social Quality*, *9*(1), 32–50.

Inkeles, A. (1999). *One world emerging? Convergence and divergence in industrial societies*. Westview Press.

International Monetary Fund. (2019). *World economic outlook database* (April 2019) [Data set]. https://www.imf.org/en/Publications/WEO/weo-database/2019/April

Iskenderov, P. (2020, March 24). The virus has ruined the European Union [in Russian]. *The International Affairs*. https://interaffairs.ru/news/show/25748

Juncker, J. C., Tusk, D., Dijsselbloem, J., Draghi, M., & Schulz, M. (2015). *Completing Europe's economic and monetary union*. European Commission.

Kooths, S. (2020, March 19). *Economic outlook update: German GDP expected to slump between 4.5 and 9 percent in 2020*. Kiel Institute for the World Economy (IfW). https://www.ifw-kiel.de/publications/media-information/2020/economic-outlook-update-german-gdp-expected-to-slump-between-45-and-9-percent-in-2020/

Libman, A. M. (2006). The role of economic integration and disintegration in the post-soviet region: Quantitative analysis. *Forecasting problems, 5*, 58–72.

Palier, B., Rovny, A.E., & Rovny, J. (2018). European disunion? Social and economic divergence in Europe, and their political consequences. In Ph. Manow, B. Palier, H. Schwander (Eds.), *Welfare democracies and party* *politics: Explaining electoral dynamics in times of changing welfare capitalism* (pp, 281-297). Oxford University Press.

Parsons, T. (1971). *The system of modern societies*. Englewood Cliffs: Prentice-Hall.

Pelipas, I. (2017). *Real, nominal and institutional convergence in the EAEU countries*. Research Center of the Institute of Privatization and Management.

Pritchett, L. (1997). Divergence, big time. *Journal of Economic Perspectives*, *11*, 3–17.

Quah, D. T. (1997). Empirics for growth and distribution: stratification, polarization, and convergence clubs. *Journal of Economic Growth*, *2*, 27–59.

Ridao-Cano, C., & Bodewig, C. (2018). *Growing united: Upgrading Europe's convergence machine*. World Bank.

Romashenko, S. (2020, March 26). *Italy blocked EU summit decisions* [in Russian]. DW-Ukraine. https://p.dw.com/p/3a6HZ

Sala-i-Martin, X. (1994). Cross-sectional regressions and the empirics of economic growth. *European Economic Review*, *38*(3-4), 739-747.

Solow, R. M. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics*, *70*, 65–94.

Sorokin, P. A. (1964). *The basic trends of our times*. Rowman & Littlefield.

Spence, M. (2011). *The next convergence: The future of economic growth in a multispeed world*. Farrar, Straus and Giroux.

Swan, T. W. (1956). Economic growth and capital accumulation. *Economic Record*, *32*, 334–361.

Temple, J. (2006). Convergence scenarios: An overview [Power Point Slides]. *OECD Workshop «Global Convergence Scenarios: Structural and Policy Issues».* OECD.

The Brussels Times. (2020, March 15). Coronavirus: EU likely to enter a recession. *The Brussels Times*. https://www.brusselstimes.com/economics/100341/coronavirus-eu-likely-to-enter-recession/

Tinbergen, J. (1961). Do communist and free economies show a convergence pattern? *Soviet Studies*, *12*(4), 333–341.

Received: September 12, 2020.
1st edit: September 19, 2020.
Accepted: October 30, 2020.