Impact of Globalization and Informatization on the Development of National Economies

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Abstract

The purpose of this paper is to analyze the existing interconnectedness between national economies in the context of globalization of the world economy. The principal methods of research were the search, systematization, assessment and analysis of macroeconomic indicators and subsequent inferences regarding the interdependence of national economies in the context of globalization of the world economy. It is shown that the modern stage of international economic relations has brought about the close interconnectedness between national economies amid the rapid globalization, which may though evolve in an asymmetric way under the influence of regional and internal factors.

Keywords

Geopolitics, Interdependence, Internationalization, Integration, International Trade.

Introduction

The current stage of development of international economic relations in the world economy is characterized by globalization. Globalization in the world is characterized by the growing interdependence and interconnectedness of national economies, which allows inferences regarding their internationalization. The internationalization of a national economy relates to the considerable influence of international economic relations on its internal operation and its dependence on the economic processes in the world economy.
The interdependence of national economies has evolved in a sequence of stages. The first stage in its evolution primarily concerned distribution and trade development. Late in the 19th century, the second stage began, characterized by the growing role of international capital flows and development of stable economic ties between countries. The third stage brought about international integration between national economies, intensified international division of labour, stronger economic openness and freedom of trade, global scientific and technological advance and global penetration of international capital.

Overall, there are usually five stages of globalization:

1. The first stage lasted through the end of the 19th century and was marked by the development of the international market and international trade.
2. The second stage continued from the end of the 19th century to the beginning of the 20th century, dominated by the processes of monopolization in production and alignment of zones of economic influence between dominant powers being the centres of gravity. Simultaneously, production factors began to flow between countries, bringing about the international division of labour.
3. The third stage occurred between the end of World War I and the beginning of World War II and was characterized by an unstable financial system, the flight of long-term capital from industrially advanced economies and the development of a bipolar world.
4. The fourth stage occurred after the end of World War II and till the early 1990s and was marked by the liberalization of international external policies, productivity growth, scientific and technological advance and the emergence of supranational global institutions (the UN, IMF, World Bank, etc.).
5. The currently continuing fifth stage began in the early 1990s and has been characterized by the emergence of, first, a unipolar and, later on, multipolar world order. The global economy is also characterized by developing external economic ties, liberalization, transnationalization of production and capital, stronger regional integration and unification of the global regulation system of international economic ties.

The main drivers of the globalization of the world's economic processes are as follows:

1. Expansion and intensification of scientific and technological advance in communications and transport, international division of labour, development of strong ties between countries. The current state of development of telecommunications provides for prompt decision-making, particularly with regard
to international capital investment.

2. Reining in protectionist policies and the liberalization of trade, which translated into lower trade barriers, activation of labour and capital mobility, etc.

3. Transnationalization consisting in the active development of transnational corporations and partial distribution of their profits, production and consumption outside the national borders. At the current stage of international economic relations, approximately 80% of innovation is driven exactly by transnational corporations, and their revenues are comparable with national GDP figures of some countries.

4. Global consensus in terms of understanding the principal mechanisms of the market economy and the free trade system.

5. Weakening influence of the cultural factor, which, in turn, brings about more homogeneity in many spheres, including art.

6. High pace of development of financial markets, which may emerge as major detonators in destabilizing national economies and create a higher probability of systemic disruptions.

An important observation in assessments of the objective development of globalization concerns the positive effects for national economies:

- A country may harness the effect of scale and reap lower production costs and economic growth.
- Specialization and international division of labour result in a more efficient allocation of funds and resources.
- Outpacing the growth of direct investment vs. the rates of global trade, which results in more active adoption of technology innovations and, as a result, intensifying competition.
- Advance of free trade providing for mutually advantageous commercial terms;
- Mobilization of financial resources providing a wider choice of instruments for investors.
- Potential for countries to consolidate efforts in addressing common issues, specifically in the economic and environmental domains.
- Production rationalization and subsequently improved productivity.
- Intensifying international competition and, as a result, enhanced range and quality of products and services.
However, besides positive outcomes for a national economy, globalization is also fraught with certain negative aspects:

- Asymmetrical developmental effects for the national economies of developing and developed countries, creating advantages for the latter and thus extending the gap.
- Potential of the destruction of internal production and other relations between economic entities of the country and, as a consequence, a buildup of social problems.
- Risk of the deindustrialization of the economy.
- Uneven spread of positive outcomes of globalization in different industries of the economy.
- Potential of weakening of government control over the economy and consolidation of control functions with strong economies (centres of gravity), international organizations and transnational corporations.
- Potential of destabilization of the financial sphere and regional equilibrium as a result of economic fluctuations in one of the countries or regions.
- Developing countries generally receive smaller and unstable gains from globalization, emerging as commodity and labour suppliers.
- The consequences of globalization for developing countries may include a widening gap in the scientific and technological advance; intensifying social tensions; declining incomes for a considerable share of the population; stronger dependence on international economic developments and processes; pressures from transnational corporations against the policies of national interest (protectionist policies); rising public debt.
- Potential growth of unemployment in developed countries and instability in financial markets as a consequence of the transfer of production to developing countries and adoption of technological innovation, leading to the buildup of social tensions.
- Declining role of traditional industries in the national economy as a result of shifts in the structure and localization of production.
- Growing influence of transnational corporations and weakening role of government authorities as the interests of the former are prioritized over the country's interests.
- Uneven spread of positive outcomes of globalization in different industries of the economy.
• Blurring boundaries of financial markets resulting in weaker national sovereignty due to capital integration in the form of direct/portfolio investment that may promptly flow in and out of the country.

• Uneven pay dynamics between high-skilled and low-skilled staff, which increases social tensions.

• Globalization causes shifts in the ecosystems and spurs competition for natural resources, pressuring weaker countries into irrational resource management.

An analysis of the advantages and drawbacks of globalization should highlight controversial effects for the operation of national economies.

The globalization of the world economy particularly shows in the alignment of economic processes in a single plane. However, the degree of such processes may be different as the operation of national economies is determined by internal processes and the level of globalization of regional processes. Consequently, individual economies are affected by the globalization of processes worldwide, by regional developments and internal national factors.

Literature Review

The work on this paper included an analysis of publications in specialist journals and portals on international trade in the public domain authored by foreign and Russian researchers, as well as statistics available from public sources.

Emerging as a global phenomenon since 1960, "globalization" is a concept describing cosmopolitanism (Stearns, 2016). The term “globalization” has become quite popular in science. Globalization is often defined as a phenomenon associated with the number and intensity of numerous changes on a global scale, and the processes and activities through which these changes are promoted (Martell, 2016). It also refers to the interdependence among countries in the entire world, and political as well as economic integration at a global level. Thus, globalization blurs national borders, narrows the space in all aspects of the economic, political, social and cultural activities and events around the world. The canonical case for global governance is based on two sets of circumstances. The first occurs when there is global public good and the second under “beggar-thy-neighbor” policies (Rodrik, 2019).

From a historical perspective, a rise in international interrelation and interdependence enabled the emergence and growth of global forces such as finance, high technologies, and
new means of transportation (Hoang, Pham, 2018). Globalization comprises different economic, social, technological and cultural processes which have allowed humankind to operate at a global level (Steger, 2017).

Globalization has erased and undone the majority of regulatory and technological barriers (Phuong, Phuong, 2020). This phenomenon brings together for the first time the foundations of capital, namely, trade, finance, and production, which are mostly dependent on global cooperation and trade deals. Kent (2017) explained that growth in the range of markets has worsened the existing gap in poverty, economic growth and wealth accumulation.

Globalization processes were specifically addressed by R. Horner (2020) who called for moving beyond the division of developed vs. developing countries, as their economies are intertwined and have increasingly been progressing into interdependence. Such a position is supported by various empirical observations and positionalities, including more recently by major international organizations. Crucially, a wide range of often critical theoretical persuasions also lend their backing to such a stance, ranging from some of the foundational work in modern social sciences to research on the environment and approaches to critical development. R. Horner approaches globalization as an overarching focus on overall global development. Globalization (Ulucak et al., 2020) is a phenomenon which has social, political and economic aspects to it and directly affects production, consumption, environment and human behavior.

Nowadays, in connection with globalization of universal nature, various crises are becoming more common (Ordenov et al., 2020). All that calls for a thorough focus on studying the problems of modern society in the way of understanding the specifics of modern sociocultural processes, revisiting the problem of rethinking their value principles and searching for new worldviews. Elaborations on new social approaches in the current situation would require new knowledge of social conditions, which makes the core problem of this research. The model of global capitalism is the object of total integration. It is positioned as a homogenizing process of the world's economic and sociopolitical structures. The ideological objective of this process is to develop a single economic and political ground. Meanwhile, the authors point out that alongside positive changes brought about by scientific and technical advances and global integration, globalization also has its downsides. The intensifying globalization processes create the new and even stronger polarization of the world. The world is now undergoing deindustrialization; unemployment and poverty levels are rising rapidly; the gap between rich and poor is widening; the environmental outlook is deteriorating, etc. (Mustafin, Makhmutova, 2019; Erauskin, Turnovsky, 2019). The areas that contribute significantly to income inequality in both
advanced and developing economies include: (i) pursuing skill-biased technological change; (ii) enhancing education systems; (iii) consolidation of globalization; and (iv) reform of the labour market and its relevant institutions (Heshmati et al., 2019).

In a globalizing economy, (Babic et al., 2020) states do not only regulate, enable and constrain corporate power; they are also actors in the global economy as shareholders of corporations. In this capacity, they invest state capital into the corporate world, and increasingly so outside their own borders. Such state investment takes place on a continuum from purely return-on-investment-driven to more strategically motivated, controlling investments. Both the ‘financial’ and the ‘political’ interest are often intertwined and hard to differentiate, as it can be seen in the general concerns about the ‘real’ aims and agency of transnationally active SOEs (state-owned enterprises) in host countries.

Empirical analysis by B. Candelon, A. Carare, J.B. Hasse, J. Lu (2020) confirms that globalization is beneficial up to a certain point, unless policies are in place to mitigate the negative effects on growth from financial crises. Financial regulation and supervision are needed to help nations in mitigating the negative effects of globalization.

R. Sundaram, M. Saouli and J. Ziade (2020) believe that globalization and trade openness enhance the growth of an economy by allocating the resources efficiently, dissemination of knowledge, providing accessibility to products and services and implementing technology to improve productivity.

Y. Keho (2017) believes that countries with more trade openness will relatively outperform those with less openness. From this perspective, developing countries have much to gain by trading with advanced countries. Y. Keho (2017) describes globalization as the process of interaction and integration among people, companies, and governments worldwide, resulting in major political, cultural and economic changes around the world. Globalization spurs economic growth by promoting the economy into international markets, stimulating expansion, technology transfer and foreign direct and indirect investment.

S. Glushkova, O. Lomakina, T. Sakulyeva (2019) point out that globalization brings about structural changes in the modern world. This process affects national government systems and brings about strategic changes in economic, political and spiritual development. The rising interdependence contributes to the convergence and standardization of conditions and factors affecting individual countries. It is an indicator of the level of sustainable development of national states and, consequently, their potential to respond to the challenges of globalization.
According to N. Purohit, D. Adesara, S. Kedia, A. Venkteshwar, A. (2019), financial globalization can help developing countries to better manage output and consumption volatility. A positive aspect of globalization is that a country is able to shift some of its income risk to world markets. Since most developing countries are rather specialized in their output and factor endowment structures, they can, in theory, obtain even bigger gains than developed countries through international consumption risk sharing— that is, by effectively selling off a stake in their domestic output in return for a stake in global output.


**Methods**

At the current stage of interdependence among national economies, researchers can determine a general trend in the dynamics of macroeconomic indicators and assess the impact of certain regional and internal factors.

To analyze the interdependence of national economies globally and at the regional scale, we analyzed data for select former Soviet countries (located in Europe) based on comparability of their indicators; the countries represented two groups:

- Member countries of the EU without disputed territories: Lithuania, Latvia, Estonia;
- Countries with disputed territories: Armenia, Georgia, Ukraine.

The research was based on the systems approach, comparative and statistical methods. The principal methods of research were the search, systematization, assessment and analysis of macroeconomic indicators and subsequent inferences regarding the interdependence of national economies in the context of globalization of the world economy.

Table 1 lays out the per capita GDP data adjusted for purchasing power parities, which represents a major macroeconomic indicator that can serve as a gauge in the comparative analysis of the level of globalization of the national economies.
Table 1 Per capita GDP of Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia for 2005-2018, USD

<table>
<thead>
<tr>
<th>Years/Countries</th>
<th>Armenia</th>
<th>Georgia</th>
<th>Lithuania</th>
<th>Latvia</th>
<th>Estonia</th>
<th>Ukraine</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>4522.1</td>
<td>4673.3</td>
<td>14562.6</td>
<td>13837.2</td>
<td>16574.5</td>
<td>6725.4</td>
</tr>
<tr>
<td>2006</td>
<td>5306.4</td>
<td>5298.3</td>
<td>16484.5</td>
<td>15742.8</td>
<td>19257.6</td>
<td>7512.2</td>
</tr>
<tr>
<td>2007</td>
<td>6237.5</td>
<td>6157</td>
<td>19095.6</td>
<td>18121.4</td>
<td>22133.5</td>
<td>8380</td>
</tr>
<tr>
<td>2008</td>
<td>6842.3</td>
<td>6465.2</td>
<td>20744.1</td>
<td>19462.4</td>
<td>22807.8</td>
<td>8812.3</td>
</tr>
<tr>
<td>2009</td>
<td>5959.5</td>
<td>6316</td>
<td>18145.9</td>
<td>16921.6</td>
<td>20579.6</td>
<td>7542.9</td>
</tr>
<tr>
<td>2010</td>
<td>6204.4</td>
<td>6838.6</td>
<td>20039</td>
<td>17589.5</td>
<td>21766.8</td>
<td>7664.4</td>
</tr>
<tr>
<td>2011</td>
<td>6668.8</td>
<td>7546</td>
<td>22823.9</td>
<td>19797.9</td>
<td>24738.8</td>
<td>8281.9</td>
</tr>
<tr>
<td>2012</td>
<td>7295.2</td>
<td>8239.5</td>
<td>24645.7</td>
<td>22298.2</td>
<td>26141</td>
<td>8481.8</td>
</tr>
<tr>
<td>2013</td>
<td>7673.6</td>
<td>8694.2</td>
<td>26680</td>
<td>22691</td>
<td>27596.5</td>
<td>8648</td>
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<tr>
<td>2014</td>
<td>8122.2</td>
<td>9263.9</td>
<td>28156.3</td>
<td>23838.8</td>
<td>29107.9</td>
<td>8478.7</td>
</tr>
<tr>
<td>2015</td>
<td>8497.8</td>
<td>9617.5</td>
<td>28823.8</td>
<td>24833.7</td>
<td>29444.3</td>
<td>7972.4</td>
</tr>
<tr>
<td>2016</td>
<td>8643.1</td>
<td>9993.5</td>
<td>30334.3</td>
<td>25878.6</td>
<td>30910.6</td>
<td>8289.7</td>
</tr>
<tr>
<td>2017</td>
<td>9509.1</td>
<td>10674.2</td>
<td>33386.9</td>
<td>28130.9</td>
<td>33721.1</td>
<td>8693.7</td>
</tr>
<tr>
<td>2018</td>
<td>10265.4</td>
<td>11434.3</td>
<td>n/a</td>
<td>n/a</td>
<td>36324.5</td>
<td>9233.2</td>
</tr>
</tbody>
</table>

Source: (UNECE, 2018a).

Table 2 lays out unemployment figures for Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia.

Table 2 Rates of unemployment for Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia for 2005-2018, %

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>31.2</td>
<td>27.8</td>
<td>28.7</td>
<td>16.4</td>
<td>18.7</td>
<td>19</td>
<td>18.4</td>
<td>17.3</td>
<td>16.2</td>
<td>17.6</td>
<td>18.5</td>
<td>18</td>
<td>17.8</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>15.1</td>
<td>15.4</td>
<td>17.4</td>
<td>17.9</td>
<td>18.3</td>
<td>17.4</td>
<td>17.3</td>
<td>17.2</td>
<td>16.9</td>
<td>14.6</td>
<td>14.1</td>
<td>14</td>
<td>13.9</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Lithuania</td>
<td>8.3</td>
<td>5.8</td>
<td>4.3</td>
<td>5.8</td>
<td>13.8</td>
<td>17.8</td>
<td>15.4</td>
<td>13.4</td>
<td>11.8</td>
<td>10.7</td>
<td>9.1</td>
<td>7.9</td>
<td>7.1</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>10</td>
<td>7</td>
<td>6.1</td>
<td>7.7</td>
<td>17.5</td>
<td>19.5</td>
<td>16.2</td>
<td>15</td>
<td>11.9</td>
<td>10.8</td>
<td>9.9</td>
<td>9.6</td>
<td>8.7</td>
<td>7.4</td>
<td></td>
</tr>
<tr>
<td>Estonia</td>
<td>8</td>
<td>5.9</td>
<td>4.6</td>
<td>5.5</td>
<td>13.5</td>
<td>16.7</td>
<td>12.3</td>
<td>10</td>
<td>8.6</td>
<td>7.4</td>
<td>6.2</td>
<td>6.8</td>
<td>5.8</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Ukraine</td>
<td>7.2</td>
<td>6.8</td>
<td>6.4</td>
<td>6.4</td>
<td>8.8</td>
<td>8.2</td>
<td>8</td>
<td>7.6</td>
<td>7.3</td>
<td>9.3</td>
<td>9.1</td>
<td>9.3</td>
<td>9.5</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

Source: (UNECE: 2018a).

Table 3 lays out the consumer price index data for Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia.

Table 3 Consumer price index for Armenia, Georgia, Lithuania, Latvia, the Republic of Moldova, Ukraine and Estonia for 2005-2018, % growth

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>0.6</td>
<td>2.9</td>
<td>4.4</td>
<td>9</td>
<td>3.4</td>
<td>8.2</td>
<td>7.7</td>
<td>2.6</td>
<td>5.8</td>
<td>3</td>
<td>3.7</td>
<td>-1.4</td>
<td>1</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>8.3</td>
<td>9.2</td>
<td>9.2</td>
<td>10</td>
<td>1.7</td>
<td>7.1</td>
<td>8.5</td>
<td>-0.9</td>
<td>-0.5</td>
<td>3.1</td>
<td>4</td>
<td>2.1</td>
<td>6</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Lithuania</td>
<td>2.7</td>
<td>3.7</td>
<td>5.7</td>
<td>10.9</td>
<td>4.5</td>
<td>1.3</td>
<td>4.1</td>
<td>3.1</td>
<td>1</td>
<td>0.1</td>
<td>-0.9</td>
<td>0.9</td>
<td>3.7</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>6.7</td>
<td>6.5</td>
<td>10.1</td>
<td>15.4</td>
<td>3.5</td>
<td>-1.1</td>
<td>4.4</td>
<td>2.3</td>
<td>0</td>
<td>0.6</td>
<td>0.2</td>
<td>0.1</td>
<td>2.9</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Estonia</td>
<td>4.1</td>
<td>4.4</td>
<td>6.6</td>
<td>10.4</td>
<td>-0.1</td>
<td>3</td>
<td>5</td>
<td>3.9</td>
<td>2.8</td>
<td>-0.1</td>
<td>-0.5</td>
<td>0.1</td>
<td>3.4</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Ukraine</td>
<td>13.4</td>
<td>9.1</td>
<td>12.8</td>
<td>25.2</td>
<td>15.9</td>
<td>9.4</td>
<td>8</td>
<td>0.6</td>
<td>-0.2</td>
<td>n/a</td>
<td>48.7</td>
<td>13.9</td>
<td>14.4</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Source: (UNECE, 2018a).
A linear trend formula can be used to build the trend for the future years:

\[ Y_t = a_0 + a_1 t \]

Accordingly, the parameters of the linear trend are calculated as follows:

\[ a_0 = \bar{y} = \frac{\sum y}{n} \]

\[ a_1 = \frac{\bar{y}_t}{t} \]

The above formulas are used to calculate the parameters of the linear trend, which is then plotted for 2019-2022 for the countries chosen as examples with available data series on three macroeconomic indicators (per capita GDP, unemployment rate, consumer price index) — see Table 4.

Table 4 Trend values of macroeconomic indicators for Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia for 2005-2018

<table>
<thead>
<tr>
<th>Countries</th>
<th>Total</th>
<th>( a_0 )</th>
<th>( a_1 )</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita, USD (the trend line is based on data for 2005-2017)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Armenia</td>
<td>56,409.8</td>
<td>8,058.5</td>
<td>430.0</td>
<td>10,208.7</td>
<td>10,638.7</td>
<td>11,068.8</td>
<td>11,498.8</td>
</tr>
<tr>
<td>2 Georgia</td>
<td>64,028.8</td>
<td>9,147.0</td>
<td>493.4</td>
<td>11,614.1</td>
<td>12,107.5</td>
<td>12,601.0</td>
<td>13,094.4</td>
</tr>
<tr>
<td>3 Lithuania</td>
<td>194,850.9</td>
<td>27,835.8</td>
<td>1,614.6</td>
<td>35,909.1</td>
<td>37,523.7</td>
<td>39,138.3</td>
<td>40,753.0</td>
</tr>
<tr>
<td>4 Latvia</td>
<td>167,469.1</td>
<td>23,924.2</td>
<td>1,225.1</td>
<td>30,049.6</td>
<td>31,274.7</td>
<td>32,499.8</td>
<td>33,724.9</td>
</tr>
<tr>
<td>5 Estonia</td>
<td>201,660.2</td>
<td>28,808.6</td>
<td>1,369.1</td>
<td>35,653.9</td>
<td>37,023.0</td>
<td>38,392.1</td>
<td>39,761.1</td>
</tr>
<tr>
<td>6 Ukraine</td>
<td>58,846.2</td>
<td>8,406.6</td>
<td>6.3</td>
<td>8,438.0</td>
<td>8,444.2</td>
<td>8,450.5</td>
<td>8,456.8</td>
</tr>
</tbody>
</table>

| Unemployment rate, % (the trend line is based on data for 2005-2017) |       |           |           |        |        |        |        |
| 1 Armenia       | 265.6  | 20.4      | -1.0      | 12.8    | 11.7   | 10.9   | 10.0   |
| 2 Georgia       | 209.5  | 16.1      | -0.2      | 14.3    | 14.1   | 13.9   | 13.7   |
| 3 Lithuania     | 131.2  | 10.1      | 0.2       | 11.4    | 11.5   | 11.7   | 11.8   |
| 4 Latvia        | 149.9  | 11.5      | 0.1       | 12.1    | 12.2   | 12.3   | 12.4   |
| 5 Estonia       | 111.3  | 8.6       | -0.1      | 8.0     | 7.9    | 7.8    | 7.7    |
| 6 Ukraine       | 103.9  | 8.0       | 0.2       | 9.8     | 10.1   | 10.3   | 10.5   |

| Consumer price index (CPI), growth rate, % (the trend line is based on data for 2006-2018) |       |           |           |        |        |        |        |
| 1 Armenia       | 52.8   | 4.1       | -0.4      | 1.3     | 0.9    | 0.5    | 0.1    |
| 2 Georgia       | 62.1   | 4.8       | -0.5      | 1.0     | 0.5    | 0.0    | -0.6   |
| 3 Lithuania     | 40.8   | 3.1       | -0.4      | 0.2     | -0.3   | -0.7   | -1.1   |
| 4 Latvia        | 47.4   | 3.6       | -0.7      | -1.4    | -2.2   | -2.9   | -3.6   |
| 5 Estonia       | 42.3   | 3.3       | -0.4      | 0.5     | 0.1    | -0.3   | -0.7   |
| 6 Ukraine       | 168.8  | 13.0      | 0.5       | 16.2    | 16.6   | 17.1   | 17.5   |

Source: developed by the author based on the above statistics.

Elaborations on the data and trend values from the above tables provide visibility in terms of the developmental trends of the analyzed macroeconomic indicators. E. g., the general
upside trend in per capita GDP in all of the analyzed countries with the simultaneous decline in 2009 (in the wake of the global economic crisis) is indicative of globalization in the world economy, however, uneven intensity reflects the effects of regional and internal economic processes. In general, the dynamics of macroeconomic indicators point at the mutual interdependence of the national economies — not only dependence on the dominating economies being the centres of gravity.

Results

Methods chapter above comprised trend analysis and mapping by select macroeconomic indicators observed in several countries within one region, all former constituents of the USSR, some of them involved and others not involved in territorial disputes.

The per capita GDP trend for Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia is shown in Fig. 1.

Figure 1 Per capita GDP trend for select countries in Europe.
Source: (UNECE: 2018b)

Up to 2009, per capita GDP was growing in each of the countries, then in 2009, all registered a decline in the wake of the global economic crisis of 2008. Since 2010, all countries have registered an upward trend, which is indicative of interdependence among the national economies amid globalization in the world economy. An important observation relates to the fact that the rates of GDP growth in the countries in the EU bloc and not involved in territorial disputes are nearly thrice as high as those of Armenia, Georgia and Ukraine, which reflects the uneven effects of regional processes and internal factors. E. g.,
the relatively slow growth in Armenia, Georgia and Ukraine is in part a result of territorial disputes and political crises. Meanwhile, the indicator of per capita GDP in Ukraine used to be above those of Armenia and Georgia, however, Ukraine eventually turned out to be lagging behind the said two countries as a result of a political crisis affecting the economy. In 2015, the Ukrainian GDP growth rate followed a downward trend due to the influence of internal political and economic factors. Accordingly, the conclusion is, there exists a considerable degree of interdependence among the national economies, which is though subject to fluctuation depending on the regional and internal factors.

The unemployment rate trend for Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia is shown in Fig. 2.

![Unemployment rate trend in select European countries.](http://www.webology.org)

Figure 2 Unemployment rate trend in select European countries.  
Source: (UNECE: 2018b)

The unemployment rate trend is less clear cut compared to per capita GDP. Until 2009, all countries, except Georgia, registered declining unemployment rates. In the wake of the economic crisis of 2008, unemployment went up, however, it began to decline in 2011, except for Armenia where the economy was hit by political crises. The level of unemployment in Ukraine had followed the general trajectory before going up in the wake of the developments of 2014 that hit the national economy; it has then remained largely flat with minor increases. Thus, unemployment in the analyzed countries within one region followed a general common trajectory, while intensity and individual deviations can be explained by the regional and internal factors.
The consumer price index trend for Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia is shown in Fig. 3.

![Consumer price index trend for select European countries. Source: (UNECE: 2018c)](image)

Consumer price index in Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia shows more varied patterns compared to the previous two macroeconomic indicators but follows a common trajectory with a certain intensity and certain lagging behind. E.g., in 2008, in the wake of the global economic crisis, consumer price index levels rose in all of the analyzed countries and the biggest increase was registered in Ukraine. A sharp increase of consumer price index was also observed in Ukraine in 2015, which was due to political and economic crises hitting the country.

Based on the analysis of the dynamic of three macroeconomic indicators, it is fair to suggest that economic processes have followed a common general trajectory, while individual discrepancies can be explained by political and economic crises hitting either the respective individual countries or parts of the region.

Such phenomena may be due to the effects of the division of labour and subsequent integration between countries, their interaction in various forms and at different levels as they develop close economic ties. The growing interdependence of the national economies leads to their partial unification, lifting or elimination of barriers for the flows of capital, labour, goods and services, development of a single market, blurring of economic differences and weakening of discriminatory measures against the actors of the interacting economies. Meanwhile, the interconnectedness of national economies occurs not only at the supranational, but also at the regional level as well.
Arguably, the interdependence of national economies generally evolved in the following stages: development of productive forces, international division of labour, international economic cooperation, international economic integration, globalization of the world economy. The current stage of globalization of the world economy has shifted the balance of developmental factors affecting national economies more toward the external side. No country in the world could claim complete economic independence or absolute immunity from external factors, as it is impossible to overlook the influence of global economic subjects in the national economic strategic projections.

Discussion

The globalization of the world economy has affected the following dimensions:

- External global trade in goods and services.
- Worldwide factor exchange (labour, information, capital).
- Global financial and currency transactions (borrowings and loans, transactions in securities, foreign exchange, etc.).
- Cooperation in production, scientific and technological advance, information, engineering and technologies.
- Digital technologies (Ohrimenco et al., 2019).

Accordingly, the globalization of international economic processes occurs in the following aspects:

- Deeper product internationalization in the form of multisided engagement of various countries in the production of end products at various stages and in various forms.
- Deeper internationalization of capital showing in capital flow circulation, for instance, in the form of direct investment (Steinberg, Nelson, 2019).
- Globalization of production forces in the form of international cooperation and specialization via the exchange of production factors and knowledge in the scientific and technological domain.
- Development of global infrastructure supporting international cooperation to ensure access to material, information, organizational and economic resources.
- Intensifying internationalization of exchange with the more rapid acceleration of the service sector compared to material production.
- Growth of international labour migration, particularly that of low-skilled labour from developing to developed countries.
Growing impact of production and consumption internationalization over global problems and specifically the environment.

At the macro level, globalization consists in the development of more relaxed trade rules, reduction of investment and trade barriers between countries and establishment of a single trade or other (e.g., information) ground between countries in a region.

At the micro level, globalization consists in the expansion of national companies into international markets and operation on a global scale taking into account certain cross-cultural aspects.

The analyzed countries, namely, Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia have consistently improved their ranks by the index globalization, which integrates political and social components. Currently, the 2017 ranking by the Index of Globalization is available in the public domain as laid out in Table 5.

Table 5 Ranking by Index of Globalization for Armenia, Georgia, Lithuania, Latvia, Ukraine and Estonia for 2017

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Index of Globalization 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Estonia</td>
<td>83.77</td>
</tr>
<tr>
<td>28</td>
<td>Lithuania</td>
<td>81.34</td>
</tr>
<tr>
<td>32</td>
<td>Latvia</td>
<td>80.57</td>
</tr>
<tr>
<td>42</td>
<td>Georgia</td>
<td>75.55</td>
</tr>
<tr>
<td>45</td>
<td>Ukraine</td>
<td>74.83</td>
</tr>
<tr>
<td>66</td>
<td>Armenia</td>
<td>68.24</td>
</tr>
</tbody>
</table>

Source: (KOF Swiss Economic Institute, 2017).

Based on the index rankings of the analyzed countries, the highest spots are held by the countries not involved in territorial disputes and being members of the EU. Other countries are lagging behind considerably. The trend is there for clear reasons, reflecting the impact of territorial disputes, political instability, economic issues and deteriorating economic ties with neighboring countries, which, in turn, is indicative of growing interdependence among the national economies. Lithuania, Latvia and Estonia (having strong economies) are developing in sync with the level of globalization, meanwhile, Georgia, Ukraine and Armenia (having weak economies) are more affected by the effects of economic and political crises and regional factors.

The globalization of the world economy now affects and transforms the whole scope of national economies, recasting them as a single mechanism. Such globalization began in the late 1970s with the rise of the Internet, telephone, satellite launches, i.e., with the
development of communication technologies that erased national boundaries and simplified the mechanism of the international movement of capital. This expansion created favorable conditions for the development of an integral global economic system with national economies as its constituents. High-tech industries were the first to be transformed by globalization and develop closer production and cooperation ties. The advance of telecommunications also enabled the development of the financial market.

The next stage of globalization reversed the roles of national economies and the world economy. Previously, the national economies of developed countries, such as the economy of England, used to serve as the role model dictating specific patterns and forms of development. Meanwhile, internal economic relations were prioritized and international ties came second. However, the development of globalization and strengthening of the world markets and structures meant national economies had to adjust to the realities of the global economy.

Another leap in the development of globalization is the declining role of national regulatory instruments, which are no longer as efficient in protecting economies from external impacts (Kanbur, 2019). Consequently, the rising interdependence makes governments more cautious in using macroeconomic regulation (export subsidies, import barriers, refinancing rate, etc.). As interdependence deepens the stability of the international economic regime will increasingly rely on a system of global governance (Zagashvili, 2019).

Such globalization creates the global atmosphere of uncertainty, which, in turn, raises certain concerns among economists as all national economies experience not only the positive outcomes, but negative outcomes, too. Moreover, some believe, the effects of globalization are only positive for the strongest economies and tend to impair the economies of developing countries. Thus, protectionist policies implemented by a developing country may be an instrument of protecting the local market from international market that might risk the industries inside the nation and might result in the depletion of the nation’s sovereignty rate (Islam et al., 2019).

B.G. Gunter and R. van der Hoeven (2004) examine the evolution of shares of world output, exports and investment from 1985 to 2002 and find China and India were clear winners of globalisation, more than doubling their world shares in exports and investment. B. G. Gunter and R. van der Hoeven (2004) also concluded that many developing countries have liberalised their tariff regimes without increasing their trade-to-GDP ratios and tariff liberalisation went furthest in Latin America, yet these countries were not the top globalisers.
Despite a growth in overall trade integration (at the global level), many countries are not part of this. Furthermore, while China and India were the dominant drivers of globalisation during 1985–2002, there are now many countries that have been driving globalisation (Gunter, Wilcher, 2020).

Members of major political and economic unions come under pressure from the dominant actors of global trade, i.e., the USA and leading EU economies (the UK). In fact, inequality in dependent countries rises significantly faster than in the dominating countries (Kokodey et al., 2020). The entire system of international trade is disrupted by the growing nationalism that is threatening globalization (McCarthy, 2019).

Over the past decade and a half, major groups of mutual influence have shaped and development cycles have accelerated, which is sufficient to render this process irreversible and conclusive (Siegrist et al., 2009). Therefore, this substantiates the forecasts of not only accelerated diversification of external trade activities in the future and, subsequently, stronger interdependence among the actors of the global economy, but also prompt development of diverse markets of common resources. In the context of globalization the investment activity has gained new dimensions, becoming a global one, with serious implications, which manifest itself over the national economies and also over the world economy (Fraticiu, 2019).

From 2008, the economic globalization entered a new phase (Manzi, 2019) marked by the cooling down and stagnation of the process of internationalization of national economies. It is still too early to determine, but the surge of populist forces within the domestic sphere and mainly within the developed economies could mark a new phase of economic globalization, possibly even characterized by a reversion of the internationalization of national economies. Many researchers, such as M. A. Witt (2019), B. Oramah, R. Dzene (2019) believe de-globalization is taking place, which represents the process of weakening interdependence among nations, i.e., countries rely less on goods and services or on investment from other countries, relative to levels of domestic economic activity, which may mean trade and investment flows as percentages of GDP should be declining.

In a situation of global market integration and geopolitical change, pooling a part of one’s sovereignty – the relentless quest for mutual reassurance – is the only way to preserve it (Visco, 2019). National economies follow a common general trajectory but with different degrees of intensity. Approximately 33% of revenues in developing countries and 20% in developed countries depend on exports. Foreign direct investments demonstrate high growth rates and significant influence over national economies, transforming domestic
industries, advancing technology transfer and the establishment of global companies (Welfens, 2019). Intensifying competition advances the adoption of innovation, which, in turn, speeds up globalization processes. Meanwhile, trade relations are driven by trade in services and particularly intellectual capital. All the above factors contribute to stronger interdependence and interconnectedness of national economies at the global and regional levels. Therefore, complete diversification should be a priority for national portfolios (Zhang, 2019). While the consumption of global product still primarily occurs in the country of production, the development of national economies becomes increasingly dependent on global structures. Only major powers, the centres of gravity, are able to control production and consumption on a major scale without experiencing political and economic pressure from the outside; transnational corporations establish headquarters in developed countries.

The intertwined globalization processes worldwide and at the regional scale also contribute to rising tensions between stronger and weaker countries and the widening gap between them. Globalization processes combine together, increasing the gap and impairing the chances of weak countries to emerge as the centres of gravity with strengthened economies. Weak countries are burdened with problems such as the increasing financial reliance on the most powerful countries and supranational financial structures; depletion of resources channelled to relieve social pressures; growing social expectations amid the wide adoption of standards projected by the most powerful countries; growing inefficiencies as a result of global economic rationalization. This gives rise to global and regional supranational structures regulating economic processes in the country and reinforces the role of international agreements governing the level of integration and coordination.

**Conclusion**

This study has shown that the intertwined globalization processes worldwide and at the regional scale also contribute to rising tensions between stronger and weaker countries and the widening gap between them. Globalization processes combine together, increasing the gap and impairing the chances of weak countries to emerge as the centres of gravity with strengthened economies. Weak countries are burdened with problems such as the increasing financial reliance on the most powerful countries and supranational financial structures; depletion of resources channelled to relieve social pressures; growing social expectations amid the wide adoption of standards projected by the most powerful countries; growing inefficiencies as a result of global economic rationalization. This gives rise to global and regional supranational structures regulating economic processes in the country and
reinforces the role of international agreements governing the level of integration and coordination.

The interconnection of national economies is increasing more and more, as a result of which they begin to develop within the same trajectory, as evidenced by the studies carried out in the Methods section. However, the degree of intensity may differ depending on internal and external factors.

An additional result of the study has been the understanding that the influence of factors is based, among other things, on the activities of the leading country, in the paradigm of which the satellite countries are developing. Also, a possible change in the trajectory of development, within the framework of globalization, can be based on a change in the position of a satellite country, its desire to break out into regional leaders, as well as the emergence of territorial conflicts provoked by pressure from outside.

**Limitation and Further Research**

Further research into the interdependence of national economies should specifically focus on countries with available input on major macroeconomic indicators but located on a different continent, e.g., in Latin America. Such countries may be addressed in further research. Such research would expand the analysis of the effects of regional factors on the process of globalization. Another important focus should be the influence of labour mobility and structure on the development of national economies amid globalization.

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