COMPREHENSIVE ASSESSMENT OF THE ECONOMIC CONSEQUENCES OF THE COVID-19 PANDEMIC

Purpose. To analyse and summarize some aspects of the negative impact of coronavirus infection Covid-19 and to provide a comprehensive assessment of the consequences of the pandemic on the world economy and the economy of Ukraine in particular.

Methodology. The study used a comprehensive analytical assessment of the impact of the pandemic on the world economy, based on reports and prognostic assessments of well-known scientists and experts, international financial and credit rating organizations, as well as personal observations of the authors.

Findings. The obtained results testify the aggravation of the economic situation in the world and in Ukraine in particular. In a short time (six months), world GDP decreased by almost 4 %, and in such major countries as the United States – by 9.1 %, the EU – by 14.4 %, Ukraine – by 11.4 %. This is evidenced by declining industrial production, declining productivity, bankruptcy and liquidation of small, micro and individual entrepreneur enterprises, declining household incomes and rising unemployment.

There is a situation when governments do not focus on the development of the internal market, but increase the amount of credit resources taken to cover the balance sheet deficit. Incentives implemented in most countries around the world to support the business environment and the population show that this level reaches 10–25 % of GDP. At the same time, the current fund in Ukraine was only 1.5 %, which is clearly insufficient. The introduction of strict restrictions in Ukraine in 5 stages has led to the closure of many small businesses and individual entrepreneurs, which reduces revenues to budgets at various levels. Thus, the spheres most affected by quarantine measures were arts, sports, entertainment and recreation (almost 50 % drop in income), research and development (73 % forestry and logging (67 %), the least affected – financial and insurance activities (only 5.4 %). Thus, the projections developed by leading international and credit rating institutions indicate the disappointing consequences for the world economy by the end of 2020, after which a gradual thawing will begin. However, it is unclear how the economic recovery will continue if quarantine measures continue. This may be evidence of erroneous forecasts and the deepening recession in the world economy.

Originality. We propose to conduct a comprehensive analysis of the main indicators of the state and development of the economic situation using the following indicators: annual GDP growth, ratio of public debt to GDP, unemployment, consumer price index, annual inflation, industrial production, business confidence and consumer confidence index. The set of these indicators reflects the trend of economic development in a crisis situation.

Practical value. This technique can be used by specialists of the Ministry of Economic Development, Trade and Agriculture of Ukraine, research institutions and institutes, individual scientists as a basis for monitoring the situation in the country and regions during the economic crisis.

Keywords: world economy, economy of Ukraine, quarantine measures, Covid-19 pandemic, economic consequences, recession

Introduction. The emergence and spread of the new Covid-19 disease, which is based on the coronavirus was declared a pandemic by the WHO on March 11, 2020. However, the situation that has arisen raises many doubts about the need for tough measures in the national economies of the world (with the exception of Sweden and Belarus). According to the WHO, the new virus has spread to almost the entire world, which has led to the adoption of quarantine measures in many countries.

Quarantine measures, for a period specified by the presidents and governments of such countries, made provisions for the closure of socio-cultural and educational institutions, trade enterprises (excluding food, medical and chemical products), manufacturing enterprises and other businesses.

Prior to the pandemic, the world’s largest economy, namely the United States, featured good economic growth and the lowest unemployment rate in the country’s 30 years of independence. Currently, this figure reaches 45 million people (from 3.6 % in 2019 to 13.7 % in 2020 of the total working population) and continues to grow. Despite a large social package (initially $ 200 per person and child and up to $ 600) approved by the President and the US Senate, the family budget is clearly insufficient to cover all necessary expenses. The situation is not the best in Ukraine either, where quarantine measures and population losses not only lack compensation, but, on the contrary, are becoming more severe. The population not only fails to receive a salary, but also cannot provide full support for their own family, and cover utility costs. The President and the Government of the country adopt and approve new laws, regulations and normative legal acts aimed at increasing utility bills, introducing new taxes and fees, as there is nothing to fill the country’s budget with. Prices for food and medicine have risen significantly. This also happens due to the forecasts of the WTO and experts on the crop failure of grain and other crops, vegetables and fruits.

Thus, the situation that has arisen and its future socio-economic consequences not only in individual countries but also around the world need to be studied in detail.

Literature review. The issue of the negative trend of economic development is studied by scientists and specialists from different countries. Many of them support the decisions of their governments to impose strict quarantine measures to contain the spread of the virus, others evaluate them negatively, because this is a restriction of social freedoms and the cause...
of economic decline. The level of incomes of individuals and legal entities, revenues to the budgets of various levels are decreasing, utility payments, the country’s debt to foreign or international financial organizations are increasing.

The closure of national borders and the division of countries according to the levels of risk of the disease have led to the closure of air, rail and road connections with the EU and other countries.

In 2020, there was a huge drop in GDP. Thus, the NBU forecasts a 5% drop in Ukraine’s GDP [1], in France — by 5.8%, Spain — by 4.1%, in the EU as a whole — 7%, the United States — 5.6%, the United Kingdom — 6.3%, and a global decline will reach 3.9% [2].

According to Neshodovsky [3], most countries have directed their efforts in the following areas — the liquidity of enterprises and the promotion of effective demand.

Myronenko-Shulgan [4] adheres to the point that under the quarantine conditions small and micro enterprises need the biggest support.

According to Nitsenko [5], during the year of the presidency of President V. Zelensky, the economic situation deteriorated significantly, which led to a systemic economic crisis within the country. This is confirmed by the fact that public debt increased by 17% within almost one year, by almost $8.5 billion, which is evidence of the low level of qualifications and competencies of the new presidential team.

In the outlined conditions, according to Zalizko, et al. [6], the problem of economic security of the country needs to be solved immediately. They propose to introduce additional indicators and sub-indices for a more complete analysis of the epidemiological situation in the country.

Thus, on March 26 and April 21, the US President and the Senate approved programs to support the country’s economy and population to prevent an economic downturn totaling $2.68 trillion. As a result, personal income of households in the second quarter of 2020 increased by 32.6 %, despite the fact that this indicator in relation to GDP decreased by a third [7]. The United Kingdom has adopted a $39 billion coronavirus program, one-fifth of which is aimed to support the most vulnerable and self-employed people whose incomes are below average [8]. A similar Fund [9] has also been established in Ukraine, with a total amount of almost UAH 66 billion [10] to combat the consequences of the problem.

**Unsolved aspects of the problem.** The economic situation in which most countries of the world appeared to be, and Ukraine in particular, requires a detailed study on the factors that have led to it and the definition of ways to eliminate them.

**The purpose** of the article is to assess past, current and projected values of economic development in a pandemic.

**Methods.** The research is based on the use of various individual elements and systematic analysis of data in general. The study was based on expert opinions and the results of surveys. Forecasts of international financial and investment credit rating organizations were used to identify future trends in economic development.

**Results. Economic consequences: worldwide scale.** The world’s largest and most developed markets have not escaped the deepening economic problems caused by the Covid-19 pandemic. Currently, the world economy is experiencing the largest decline in the last 50 years, as evidenced by the following data (Table 1) [11].

The destruction of the world economy has revealed colossal local problems. The effectiveness of measures aimed at supporting the functioning of economies in the middle of the countries has not been positively reflected in the results of quarantine measures. The result is not only a decline in incomes, bankruptcy (Table 2) [11, 12], but the decline in GDP, the largest in decades.

Experts from the Center for Aviation cite data that by the end of May most of the world’s airlines will go bankrupt [13]. That is true, because the national borders of most countries are closed, tourist flows have stopped.

Surveys conducted by the Union of Ukrainian Entrepreneurs showed that only 51% of the total number of enterprises will be able to last only 1 month in quarantine, within 2–3 months — 25%, 4–6 months — 4% and up to 1 year — 1% [14]. It should be noted that 6% of the surveyed entrepreneurs have already ceased their activity (as of April). However, in our firm belief, the figure 400 does not correspond to reality. As of August, more than 2.6 million legal entities and indivi-

<table>
<thead>
<tr>
<th>Indexes</th>
<th>Ukraine</th>
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<th>France</th>
<th>Germany</th>
<th>EU-28</th>
<th>USA</th>
<th>United Kingdom</th>
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<tbody>
<tr>
<td>Annual GDP growth rate, %</td>
<td>-11.4</td>
<td>-22.1</td>
<td>-18.9</td>
<td>-11.3</td>
<td>-14.4</td>
<td>-9.1</td>
<td>1.3</td>
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<tr>
<td>Public debt to GDP, %</td>
<td>50.3</td>
<td>99.5</td>
<td>98.1</td>
<td>59.8</td>
<td>79.3</td>
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<tr>
<td>Unemployment rate, %</td>
<td>8.6</td>
<td>15.3</td>
<td>7.1</td>
<td>4.4</td>
<td>7.2</td>
<td>8.4</td>
<td>3.9</td>
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<tr>
<td>Youth unemployment, %</td>
<td>？</td>
<td>41.7</td>
<td>19.7</td>
<td>5.7</td>
<td>14.2</td>
<td>18.6</td>
<td>12.7</td>
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<tr>
<td>Consumer price index CPI</td>
<td>99.8</td>
<td>104.0</td>
<td>105.0</td>
<td>106.0</td>
<td>105.0</td>
<td>260.0</td>
<td>108.5</td>
</tr>
<tr>
<td>Inflation rate for the year, %</td>
<td>2.5</td>
<td>-0.5</td>
<td>0.2</td>
<td>0.0</td>
<td>0.8</td>
<td>1.3</td>
<td>1.7</td>
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<tr>
<td>Industrial production, %</td>
<td>-4.2</td>
<td>-6.4</td>
<td>-11.7</td>
<td>-11.7</td>
<td>-1.6</td>
<td>-8.2</td>
<td>-1.8</td>
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<td>Business trust, p.p.</td>
<td>90.8</td>
<td>-8.9</td>
<td>93.0</td>
<td>92.6</td>
<td>-25.6</td>
<td>56.0</td>
<td>-1.0</td>
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<tr>
<td>Consumer confidence index, p.p.</td>
<td>66.7</td>
<td>49.9</td>
<td>94.0</td>
<td>-1.8</td>
<td>-15.5</td>
<td>74.1</td>
<td>-27.0</td>
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*Note: as of the end of June 2020*

<table>
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<th>Germany</th>
<th>Belgium</th>
<th>USA</th>
<th>United Kingdom</th>
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<tbody>
<tr>
<td>Bankruptcy of enterprises, units</td>
<td>400</td>
<td>1111</td>
<td>122</td>
<td>1354</td>
<td>484</td>
<td>22 482</td>
<td>2974</td>
</tr>
</tbody>
</table>

*Notes:* ？— as of the end of June 2020, **— as of the end of August
dual entrepreneurs were registered. Using the above data, we may conclude that for various reasons, including the signs of bankruptcy, about 156 thousand legal entities and individual entrepreneurs ceased their activities.

International financial and investment rating institutions provide disappointing forecasts for the global economy in the near future, including the International Monetary Fund, S&P Global Economics and Oxford Economic, Moody’s and Fitch (Table 3).

According to these forecasts, in 2020 alone there will be a decline in macroeconomic indicators of world economies. Then there will be gradual economic growth. However, the statements of the WHO President and Bill & Melinda Gates Foundation that the pandemic will continue for 2 to 5 years are unclear from these positions. Then the question arises for analysts and experts engaged in forecasting: where will the economic boom come from if the quarantine continues? This dilemma is particularly relevant in developing countries, countries with high external debt burdens, virtually destroyed industry and the lowest living standards, i.e. high levels of poverty. Under such conditions, the economy will continue to stagnate and the decline will only deepen, despite the optimistic forecasts of experts. This is confirmed by a survey conducted by the Department of Strategic Planning and Macroeconomic Forecasting [15], according to which 93 % of respondents said that the coronavirus crisis will change the nature of future world economic development, and of course not for the better. In turn, Reinhart [16] predicts the recovery of the world economy to a pre-pandemic level only after 5 years. Thus, the forecasts developed by the leading institutions may be wrong, as the continuation of the pandemic will have catastrophic consequences for national economies and most economic activities.

Consequences for Ukrainian economy. In March of this year, Prime Minister D. Shmygal announced the introduction of quarantine measures, and in late April — announced a step-by-step plan of quarantine emergence divided into 5 stages [17] (Fig. 1).

Table 3

<table>
<thead>
<tr>
<th>Name of the institution</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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<tbody>
<tr>
<td>International Monetary Fund</td>
<td>-3.0</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td>S&amp;P Global Economics and Oxford Economics</td>
<td>-2.4</td>
<td>5.9</td>
<td>3.9</td>
</tr>
<tr>
<td>Moody’s (for G20 countries)</td>
<td>-4.6</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Fitch</td>
<td>-4.6</td>
<td>4.9</td>
<td>3.4</td>
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Fig. 1. Quarantine restrictions and economic consequences for economic activities [17]
With quarantine restrictions, including the first two stages, there comes a recession. A recession is a continuous unstop-
ing decline in economic activity for more than six months.

Under the conditions of quarantine there is a complete
 closure of all types of business, except for the activities of
 wholesale and retail trade in food, pharmacies (medicines).
 Road, rail and air transportation services are suspended both
 within the country and abroad. Many economic activities are
 moving to a remote mode of operation, especially in the ser-
 vice sector. There is a huge decline in lease agreements for of-
 fice space and the bankruptcy of small and micro enterprises,
 cafeterias serving such offices. Households, for the most part,
 exist due to their own savings and accumulations, there is a
 temporary activity cessation of medium and large enterprises.
 In the future, various types of businesses will be gradually
 opened and restrictions on their operation will be lifted. There
 is a temporary or complete dismissal of employees of enter-
 prises from the main place of work, reduced labor productivity
 and gross output decrease [18].

Regarding Ukraine, IMF analysts provided a disappoint-
ing forecast of GDP: in 2020 — a decline of 8.8 %, in 2021 — an
 increase of 1.1 % and in 2022 — an increase of 3 % [19]. It is
clear that this trend will negatively affect the economy of the
country, on the results of 2020–2022 we will witness a negative
trend (-4.7 %). The EBRD, in turn, provided a more optimis-
tic forecast for the decline of Ukraine’s economy at 4.5–5.5 %,
the NBU recorded a mark of 6 % by the end of 2020 [20]. Un-
der such conditions, with high inflation, rising producer prices
and insignificant growth, and sometimes a decrease, of house-
hold income, it will be necessary to accumulate credit debt
(due to the state budget deficit) to national and external credi-
tors. According to the above study [15], changes in Ukraine are
seen by 84 % versus 16 % of those who do not see significant
changes in future economic development. Nitsenko adds that
the economic downturn could be above 30 %, which is direct-
ly related to the closure of enterprises, layoffs and increased
financing of the state deficit by new borrowing [5].

Kushch notes that the state must take on the enormous
burden of post-pandemic economic recovery, especially re-
lated to incentives and depreciation measures. He also notes
the inadequacy of the existing antiCOVID package of 1.5 % of
GDP, while other countries allocate from 10–15 % (in devel-
oping economies) to 20–25 % (developed economies) [21].

The unwillingness and lack of relevant competencies of the
President and the Government to counter the threat have led
to the collapse of the economy and a significant outflow of in-
vestment from budget-forming industries (Fig. 2), reducing
GDP, while other countries allocate from 10–15 % (in devel-
oping economies) to 20–25 % (developed economies) [21].

The pandemic effects of Covid-19 coronavi-
rus infection have a destructive effect on the world economy
and the economies of countries. As a result of the unprepared-
ness and lack of effective mechanisms to stop the spread of this
threat, many countries have restricted or completely stopped
transport within or outside their countries. This problem has a
direct impact on the functioning of enterprises and the activity
of households. Studies have shown a systematic chain reac-
tion, with the result that many companies have gone bankrupt,
a large proportion of employees have been laid off or are on
temporary leave at their own expense, labor productivity has
fallen, unemployment is rising, and GDP has fallen sharply.
The imposition of severe restrictions on the operation of
the business has caused enormous losses and reduced contri-
butions to the budgets of the respective levels. Investments in
all sectors of the economy underwent negative changes (5.4–
79.8 %).

We conclude about the inability to introduce effective cri-
sis management mechanisms at the state level, which is mani-
fested in the deepening of the systemic crisis, which began at
the end of last year. Predicting the negative trends of the world
and national economy does not add optimism, neither do the
forecasts of international financial and rating organizations
which do not coincide with the statements of the heads of the
WHO and the Bill & Melinda Gates Foundation, who predict
a prolongation of this crisis over the next 2–5 years.

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Respiratory Disease Foundation for SARS-CoV-2 Coronavirus
Комплексна оцінка економічних наслідків пандемії Covid-19

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Мета. Проаналізувати та узагальнити окремі аспекти негативного прояву коронавірусної інфекції Covid-19 і дати комплексну оцінку наслідків пандемії на світову економіку та економіку України, зокрема.

Методика. У процесі дослідження застосована комплексна аналітична оцінка наслідків пандемії на функціонування світової економіки, що заснована на звітах і прогнознічних оцінках відомих ученів і фахівців, міжнародних фінансових і кредитно-рейтингових організацій, а також освітніх спостережень авторів.

Результати. Отримані результати свідчать про загострення економічної ситуації у світі та в Україні, зокрема. За невтілівий час (півроку) відбулися значення світового ВВП майже на 4 %, а в таких країнах-драйверах, як США – на 9,1 %, ЄС – на 14,4 %, України – на 11,4 %. Це свідчить про невтілі впливи коронавірусної інфекції Covid-19 на економіку світу, що відбивається в зменшенні потреб в ресурсах, зниженні експортних поставок, підвищеніх цінах на товари та послуги. Негативно вплинули на економіку коронавірусні карантинні заходи, які призвели до зниження робочих місць, зупинки експорту, збільшення обсягу страхових виплат.

Заключні висновки. Дослідження показали, що економічні наслідки пандемії Covid-19 є негативними для світової економіки та економіки України. Необхідно вивчити узагальнені результати та прийняти відповідні заходи для покращення ситуації в майбутньому. Нагадуємо, що комплексна оцінка економічних наслідків пандемії Covid-19 є проміжним етапом, і наведені у разі проведення подальших досліджень результати можуть мати інші характеристики.

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Цель. Проанализировать и обобщить отдельные аспекты негативного проявления коронавирусной инфекции Covid-19 и дать комплексную оценку последствий пандемии на мировую экономику и экономику Украины в частности.

Методика. В процессе исследования применена комплексная аналитическая оценка последствий воздействия пандемии на функционирование мировой экономики, основанная на отчетах и прогностических оценках известных ученых и специалистов, международных финансовых и кредитно-рейтинговых организаций, а также личных наблюдений авторов.

Результаты. Полученные результаты свидетельствуют об обострении экономической ситуации в мире и в Украине, в частности. За непродолжительное время (полгода) произошло снижение мирового ВВП почти на 4 %, а в таких странах-драйверах, как США — на 9,1 %, ЕС — на 14,4 %, Украине — на 11,4 %. Это является свидетельством падения объемов промышленного производства, снижения производительности труда, банкротства и ликвидации малых, микропредприятий и ФЛП, снижения доходов домохозяйств и роста безработицы. Возникает ситуация, когда правительства стран ориентируются не на развитие внутреннего рынка, а увеличивают объемы кредитных ресурсов, взятых для покрытия дефицита баланса. Стимулирующие меры, введенные в большинстве стран мира с целью поддержки бизнес-среды и населения этих стран, показывают, что данный уровень достигает 10—25 % ВВП. В то же время в Украине сформированный фонд составил всего 1,5 %, что явно недостаточно. Введение жестких ограничений в Украине в 5 этапов привело к свертыванию деятельности многих предприятий малого бизнеса и ФЛП, отчего снижаются поступления в бюджеты различных уровней. Так, больше всего пострадали от карантинных мероприятий сфера искусства, спорта, развлечений и отдыха (падение доходов почти на 80 %), научных исследований и разработки (на 73 %), лесного хозяйства и лесозаготовки (на 67 %), меньше всего — финансовая и страховая деятельность (всего 5,4 %).

Таким образом, разработанные прогнозы ведущими международными и кредитно-рейтинговыми организациями свидетельствуют о неутешительных последствиях для мировой экономики до конца 2020 г. После начнется постепенная оттепель. Однако, не понятно, каким образом будет происходить экономическое оживление, если карантинные мероприятия будут продолжаться и в дальнейшем. Это может быть свидетельством ошибочности прогнозов и углублением рецессии мировой экономики.

Научная новизна. Нами предложено проводить комплексный анализ главных показателей состояния и развития экономической ситуации с использованием следующих индикаторов: годовой темп роста ВВП, государственный долг к ВВП, уровень безработицы, индекс потребительских цен, уровень инфляции и т.д. Это позволит установить тенденции в развитии экономики стран в условиях кризисной ситуации.

Практическая значимость. Приведенная методика может быть применена специалистами Министерства развития экономики, торговли и сельского хозяйства Украины, научно-исследовательскими учреждениями и институтами, отдельными учеными в качестве основы мониторинга ситуации в стране и регионах в условиях экономического кризиса.

Ключевые слова: мировая экономика, экономика Украины, карантинные мероприятия, пандемия Covid-19, экономические последствия, рецессия

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