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Influence of pandemic of coronavirus infection COVID-19 on economic resilience of Ukrainian enterprises

Abstract

Introduction. Modern Ukrainian enterprises operate in conditions of uncertainty and risk which could develop in unpredictable way. Currently the critical situation for Ukrainian economy is determined by the spread of pandemic of coronavirus infection COVID-19, which has acquired a global nature. Under the circumstances which has brought the pandemic, many Ukrainian enterprises approached the verge of bankruptcy due to the absence of management mechanism, which main objective is ensuring of economic resilience and maximum management efficiency and creating ability for prospective growth of their potential under the circumstances of force majeure.

The objective of this paper is to study an influence of pandemic of coronavirus infection COVID-19 on economic resilience of Ukrainian enterprises with defining of negative and positive aspects for creation of a background which would enable a development of Ukrainian business in the future.

Results. The global spread of coronavirus infection COVID-19 contributed to risk of recession in the world economy, index of world GDP growth for 2019 equals 2.9%, while the predicted values display its reduction by 3% for 2020, and by 5.8% in 2021. The GDP growth for Ukraine in 2019 equals 3.2%, its reduction in 2020 will make 7.7% and reduction predicted for 2021 makes 3.6%. The number of unemployed has increased in 2020 by 48% compared to the same period of 2019, and according to the forecasts of National Bank of Ukraine in III quarter of 2020 the rate of unemployment will grow by 12% compared to I quarter of the year. The arrears in wage equal USD 112.7 million. The state budget income deficit equals 29.6%, and specifically customs revenue has decreased by 32.2%. The fiscal revenue for May 2020 displays a slippage by 8.5% compared to May 2019. Currently one third of Ukrainian enterprises lost about 50-75% of their revenue. Most of enterprises of Ukraine show a remarkable growth of accounts receivable, and 7% of enterprises came to a near halt. It means that a new crisis will only make the make larger a rupture between Ukraine and developed countries both in aspect of competitiveness of economy and in that life quality. With regard to necessity of resumption of the operation of enterprises and ensuring their economic resilience almost all countries in the world, which were affected by the pandemic, take certain measures for resuscitation. The major part of the affected countries of the world, including Ukraine, showed their unpreparedness to face the challenges like a pandemic of coronavirus infection. The hard circumstances that Ukrainian entrepreneurs have got in were resulted not only from external political and economic factors, but were determined by the instruments of internal policy of Ukraine, what has led to reduction of business activity, reduction in public consumption and unemployment growth, which factors eventually undermine the mechanism of reproduction in national economy. Another factor which influences Ukrainian economy in a deleterious way is a reduction in global demand, which contributes to a decline in export capabilities of the country. Almost

every economic sector of Ukraine sustained major losses, which have significantly influenced the general state of state economy. Only in case of fulfillment by Cabinet of Ministers and National Bank of Ukraine of economically justified efficient anti-crisis program the state has chance to survive the crisis with damages lower than other countries will have. Despite the deleterious effect that coronavirus exercises on Ukrainian economy, there are also some positive aspects of this situation, and the main of them is gaining experience, which would be able to help in the future while managing the country's own economic resilience to take into account an option functioning in critical circumstances of global extent.

Conclusions. The main problem of Ukrainian business nowadays is the poor knowledge of strategies of enterprise functioning in conditions of force majeure of global extent. The key aspects of efficient anti-crisis program on ensuring of economic resilience of Ukrainian enterprises must include risk assessment, development of well-defined business plan, increasing adaptivity to threats which occur under conditions of continuous business processes and constant iteration and business renewal, which has to face any challenge both on national and global level.

Keywords: Entreprise; Business; Pandemic; Coronavirus Infection; World Economy; Economic Resilience; Efficiency of Operating; Performance

JEL Classification: D59; F29; I12; M20

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Вплив пандемії коронавірусної інфекції COVID-19 на економічну стійкість українських підприємств

Анотація

Вступ. Сучасні українські підприємства функціонують в умовах невизначеності й ризику, в умовах непередбачуваних обставин. Наразі кризова ситуація для української економіки обумовлена поширенням пандемії коронавірусної інфекції COVID-19, яка сягнула колосальних світових масштабів. Внаслідок обставин, що склалися, багато українських підприємств опинилися на межі банкрутства через відсутність механізму управління, головною метою якого є забезпечення економічної стійкості й максимальної ефективності функціонування з забезпеченням перспективного нарощування потенціалу в форс-мажорних обставинах.

Метою роботи є дослідження впливу пандемії коронавірусної інфекції COVID-19 на економічну стійкість українських підприємств із визначенням негативних і позитивних аспектів для формування передумов розвитку українського бізнесу в майбутньому.

Основні результати. Широкомасштабне розповсюдження вірусної інфекції COVID-19 сприяло виникненню вірогідності рецесії в світовій економіці, показник світового ВВП за 2019 р. складає 2,9%, прогнозні значення 2020 р. – скорочення на 3%, у 2021 р. – 5,8%. Рівень ВВП України за 2019 р. складає 3,2%, скорочення у 2020 р. – 7,7%, у 2021 р. – 3,6%. Кількість безробітних збільшилась у 2020 р. на 48% порівняно з аналогічним періодом 2019 р., до того ж за прогнозами НБУ у III кварталі 2020 р. зростання складе 12% порівняно з I кварталом. Заборгованість по заробітній платі складає 112,7 млн. дол. США. Недовиконання держбюджету за доходами складає 29,6%, зокрема митні надходження скоротилися на 32,2%. Податкові надходження за травень 2020 р. недовиконані на 8,5% порівняно із травнем 2019 р. Наразі третина українських підприємств втратили близько 50-75% доходів. У більшості підприємств України має місце значне зростання дебіторської заборгованості, а 7% підприємств – на межі закриття. Це означає, що нова криза лише збільшить розрив між Україною та розвинутими країнами: як за показником конкурентоздатності економіки, так і за показниками якості життя. Враховуючи необхідність поновлення функціонування й забезпечення економічної стійкості підприємств, майже в усіх уражених країнах здійснюються певні реанімаційні заходи. Переважаюча частина постраждалих країн світу, й Україна зокрема, виявилися неготовими до таких викликів, як пандемія вірусної інфекції. У важких обставинах опинилось українське підприємництво в результаті як дії зовнішньополітичних й економічних факторів, так і вибору інструментів реалізації внутрішньої політики в Україні, що призвело до зменшення ділової активності, споживання та зайнятості населення, а отже, підриву механізму відтворення в національній економіці. Також суттєвим погіршенням є скорочення глобального попиту, що сприяє обмеженню експортних можливостей країни. Майже всі галузі економіки України зазнали масштабних втрат, що суттєво відобразилося на загальному стані економіки держави. Тільки за умови реалізації Кабінетом Міністрів і Національним Банком України економічно обґрунтованої ефективної антикризової програми у країні є шанси вийти з кризи з нижчими втратами порівняно з іншими

країнами. Незважаючи на негативний вплив вірусної пандемії на економічну стійкість українських підприємств, існують і позитивні аспекти, найголовнішим із яких є набуття досвіду, який допоможе в майбутньому при управлінні своєю економічною стійкістю враховувати ймовірність функціонування в кризових умовах світового масштабу.

Висновки. Найголовніша проблема сучасності для українського бізнесу – цілковита необізнаність про функціонування в форс-мажорних обставинах світового масштабу. Одними з основних аспектів ефективної антикризової програми щодо забезпечення економічної стійкості українських підприємств мають бути аудит ризиків, розробка чіткого бізнес-плану, адаптивність до загрозливих умов безперервних бізнес-процесів і постійна ітерація та оновлення бізнесу, який має бути готовим до будь-яких змін як на національному, так і на світовому рівнях.

Ключові слова: підприємство; пандемія; коронавірусна інфекція; світова економіка; економічна стійкість; ефективність функціонування.

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Влияние пандемии коронавирусной инфекции COVID-19 на экономическую устойчивость украинских предприятий

Аннотация

Вступление. Современные украинские предприятия функционируют в условиях неопределенности и риска, в условиях непредвиденности обстоятельств. В данный момент кризисная ситуация для украинской экономики обусловлена распространением пандемии коронавирусной инфекции COVID-19, которая достигла колоссальных мировых масштабов. Вследствие сложившихся обстоятельств многие украинские предприятия оказались на грани банкротства из-за отсутствия механизма управления, главной целью которого является сохранение экономической устойчивости и максимальной эффективности функционирования с обеспечением перспективного наращивания потенциала в форс-мажорных обстоятельствах.

Целью работы является исследование влияния пандемии коронавирусной инфекции COVID-19 на экономическую устойчивость украинских предприятий с определением негативных и позитивных аспектов для формирования предпосылок развития украинского бизнеса в будущем.

Основные результаты. Широкомасштабное распространение вирусной инфекции способствовало возникновению вероятности рецессии в мировой экономике: показатель мирового ВВП за 2019 г. составляет 2,9%, прогнозные значения 2020 г. – сокращение на 3%, в 2021 г. – 5,8%. Уровень ВВП Украины за 2019 г. составляет 3,2%, сокращение в 2020 г. – 7,7%, в 2021 г. – 3,6%. Количество безработных увеличилось в 2020 г. на 48% по сравнению с аналогичным периодом 2019 г., к тому же по прогнозам НБУ в III квартале 2020 г. увеличение составит 12% по сравнению с I кварталом. Задолженность по заработной плате составляет 112,7 млн. дол. США. Недовыполнение госбюджета по доходам составляет 29,6%, в частности таможенные поступления сократились на 32,2%. По налоговым поступлениям за май 2020 г. невыполнение на 8,5% по сравнению с маем 2019 г. В данный момент треть украинских предприятий потеряли около 50-75% доходов. У большинства предприятий Украины имеет место значительный рост дебиторской задолженности, а 7% предприятий – на грани закрытия. Это означает, что новый кризис только увеличит разрыв между Украиной и развитыми странами: как по показателю конкурентоспособности, так и по показателям качества жизни. Учитывая необходимость восстановления функционирования и обеспечения экономической устойчивости предприятий, почти во всех зараженных странах осуществляются определенные реанимационные мероприятия. Преимущественная часть пострадавших стран мира, и Украина в частности, оказались неготовыми к таким вызовам, как пандемия вирусной инфекции. В тяжелых обстоятельствах оказалось украинское предпринимательство, что привело к уменьшению деловой активности, потребления и занятости населения. Также существенным ухудшением является сокращение глобального спроса, что способствует ограничению экспортных возможностей страны. Почти все отрасли экономики Украины понесли масштабные потери, что существенно отразилось на общем состоянии экономики страны. Только при условии реализации Кабинетом Министров и Национальным Банком эффективной антикризисной программы у Украины есть шансы выйти из кризиса с меньшими потерями по сравнению с другими странами. Несмотря на негативное влияние вирусной пандемии на экономическую устойчивость украинских предприятий, существуют и положительные аспекты, главнейшим из которых является приобретение опыта, который поможет в будущем при управлении своей экономической устойчивостью учитывать вероятность функционирования в кризисных условиях мирового масштаба.

Выводы. Главная проблема современности для украинского бизнеса – абсолютная неосведомленность о функционировании в форс-мажорных обстоятельствах мирового масштаба. Одними из основных аспектов эффективной антикризисной программы по обеспечению экономической устойчивости украинских предприятий должны быть аудит рисков, разработка четкого бизнес-плана и постоянная итерация и обновление бизнеса, который должен быть готов к любым изменениям как на национальном, так и на мировом уровнях.

Ключевые слова: предприятие; бизнес; пандемия; коронавирусная инфекция; мировая экономика; экономическая устойчивость; эффективность функционирования.

1. Problem statement

At the current stage of management, Ukrainian enterprises work on volatile and dynamic national and world market, with constant changes in laws, in conditions of rapid scientific and technical progress and increase of competitiveness on the world level. Enterprises exercise their activity in conditions of uncertainty and high risks and face various unforeseen circumstances. One of such critical situations for Ukrainian economy became a pandemic of coronavirus, which has stirred up the world market and Ukrainian market in particular at the beginning of March 2019.

COVID-19 is pandemic of coronavirus infection COVID-19, caused by coronavirus SARS-CoV-2, which has started from detection at the end of December 2019 in the city of Wuhan located in the province of Hubei in Central China of the first cases of pneumonia of unknown origin in local inhabitants, related with a local animal and sea food market Huanan. On December 31, 2019 the authorities of China reported the outbreak of unknown pneumonia to World Health Organization. On March 11, 2020 WHO announced that the outbreak has acquired a character of pandemic (World Health Organization, 2020).

According to the information provided for November 5, 2020, there are 48,215,732 cases of contagion in 212 countries and 1,227,096 of the cases are lethal. The countries which most affected by the pandemic and have the biggest number of the sick are USA, India, Brazil, Russia, France, Spain, Argentina (Johns Hopkins University, 2020).

Ukraine on this day has 430,467 confirmed cases, 7,924 of which are lethal cases (Ministry of Health Protection of Ukraine, 2020). Nonetheless, it's worth mentioning, that 53,000 Ukrainians die every month because of different reasons (besides coronavirus disease) (State Statistics Service of Ukraine, 2020).

The pandemic caused fluctuations in economic activity, a crisis in real economy and financial systems not only in the countries which most affected by the disease, but also in those of Ukraine, which has affected economic resilience of Ukrainian managing entities, having displayed their weak spots, unpreparedness, extremely low flexibility and poor ability to adapt quickly to the difficulties which have arisen at the same time.

In the aftermath of these circumstances, and also following the inadequate measures taken by the officials of all branches of Ukrainian government, many Ukrainian enterprises approached the verge of bankruptcy and they have faced today a necessity to solve the issues which would otherwise impede their further existence. Unfortunately, in Ukrainian economy but a small number of enterprises persist and orient of further development by means of their own resources, furthermore, the state support in such extremely difficult situations is minimal.

It is exactly because of this reason became so relevant the issues of development and implementation in Ukrainian enterprises such a system of management, which main objective would be a sustaining of steady and maximally effective functioning of economic entity nowadays, and also creating and sustaining high potential of prospective development, taking into consideration an influence of certain «catalizator» of negative trends in the world economy - a pandemic of COVID-19.

2. Brief Literature Review

The concept of «resilience» is being explored by the scholars in different domains of science (in mathematics, economy, psychology, biology, medicine, physics, chemistry), which is related with a need to study the way complex systems function. The methodology of studies of economic resilience of enterprises as open systems is generally quite developed for today and well-covered in numerous scientific papers written by Ukrainian scholars. Almost every piece of research dedicated to this issue includes a notion of economic resilience as anti-crisis instrument, which brings an enterprise to a state, which enables it to «resist» any external and internal

fluctuations and perturbations. However, did the scholars, however, regard the force majeure as type of influence? The force majeure is constituted by the circumstances which occur when the key foundations of resilience go wobbly not only for a separate enterprise or even certain states, but also when it happens almost with the whole world, the entire world economy.

We shall overview, in what ways leading Ukrainian and foreign scholars characterize economic resilience in the aspect of its ability to resist internal and external threats.

To illustrate, doctor P. P. Vorobiyenko (Vorobiyenko, 2015) states that economic growth of the country is possible only with harmonic development physical, intellectual and spiritual development of every individual, what could be attained by fundamental integral parts of such growth - education and formation of personality.

I. U. Gryshova along with other authors (Gryshova, Kriukova, & Mitiay, 2015; Hlushko, Gryshova, & Shcherbata, 2015) consider economic stability of enterprise as a dynamic concept specific for its complexity and a remarkable number of evaluatory methods. It is particularly the absence of a single standard method for assessment of the economic stability level induces scholars to construct the method of multi-component assessment procedures of the concept that we explore in this paper. O. V. Hereha (2013) regards economic stability as the enterprise's ability to sustain certain level of economic indicators, which provides its profitability and stable development. It means that economic stability as dynamic category characterizes the ability of enterprise both to preserve its primary state and acquire a new stable state, which insures its profitable functioning and stable development. O. V. Arefieva and D. M. Horodianska (2008) define economic stability as totality of reciprocally determined and interconnected constituents, which ensure the enterprises' ability to function under any conditions, provide a stock of resources (resource potential) and grant a balanced functioning process.

Foreign scholars also pay considerable attention to the concept of economic resistance of enterprise. In particular, M. Siegrist (2019) with a few co-authors believes that the economic rationale could be based on reduction of expenses, growth of income and management of risks and non-financial assets. For his part, N. Faber (2005) and his colleagues state that there is a certain confusion in definition of economic resilience, what impedes the study of the key principles for its fulfillment. Scientific studies of M. Wagner (2010) include analytics of interconnections between the management of stable development and economic indices.

In our opinion, particular interest presents a research of G. Gaspar (2014), who explores relation of economic growth with infrastructure of public healthcare. We also regard attention-worthy a research of S. Schaltegger (2015) and his co-authors, who has proved that existing approaches which tend to grant a steady development of enterprises are not sufficient to provide a necessary radical transformation of organizations, domains and societies in the aspect of development of true and steady resilient development. We can not discard this way of defining the concept, but, having analyzed all the papers indicate above, we have come to conclusion that the concept of «economic resilience of enterprise» is studied by the scholars only from the point of external and internal influences, to which the massive world extent that pandemic of coronavirus infection COVID-19 has acquired by now, is not intrinsic.

3. Purpose

The objective of this article is exploring the impact of pandemic of coronavirus infection COVID-19 on economic resilience of Ukrainian enterprises and defining negative and positive aspects for creation of preconditions for the development of Ukrainian business in future.

4. Results

The challenges of our time, caused by COVID-19, have disappointed the expectations of the people who believed that 2020 will be another year of moderate, yet stable growth for global economy and share indices, which growth was sustained by liberal monetary policy of central banks. The pandemic of coronavirus infection affected the population of many countries in two ways: as a disease and as a reason for the largest economic crisis since 2008. Panic and uncertainty of the future produce a huge pressure on business, which is already burdened with limitations imposed by governments all over the world in order to stop the extension of the virus.

The crisis has reached large dimensions, when coronavirus has spread outside China. Many investors who were nearly convinced that the Chinese had succeeded to fight the infection and

set reliable obstructions halt its advance abroad, were disappointed. The sad fact also is that the markets will feel certain anguish in the nearest time, the share indices will stop decreasing and full and entire renewal will start (Gern & Hauber, 2020). Now the players of the world market have expectations that central banks will extinguish the markets' fear with new portions of liquidity, yet the monetary policy stimulates global demand, thus stimulating the business' and consumers' need to borrow and make investors take risks. And even the representatives of certain central banks state they can do but few with a supply shock, which is now starting to take off.

Wide spread of virus infection COVID-19 has drastically increased the economic confusion, as for the amount of time needed to halt the advance of pandemic and the price of these efforts for the world economy are not known. In our opinion, the world market will need at least six months in order to find it out and within this period investors will take their positions on risk avoiding.

Ignoring of spread of COVID-19 in China has created an acute problem for Europe nowadays. Currently it has produced a visible deleterious impact on world financial markets, when the virus has spread onto Europe and the Middle East, having thus caused a global pandemic.

The risks created by COVID-19 are estimated as so aggressive according to different categories of assets that in certain domains it creates a risk of recession at a world level. Unfortunately, economic forecasts and indices could not predict the exact course of events. GDP growth projection reliable in non-pandemic period became dubious now, since the trajectory of virus spread is not known, same as effectiveness of measures taken to control the pandemic and reaction of consumers and enterprises. There is no single index, which would display and predict economic consequences of COVID-19 (Carlsson-Szlezak, Reeves, & Swartz, 2020). Nevertheless, according to the reports of International Monetary Fund (IMF) on world economic state, the indices of GDP in world and Ukraine in particular are anticipated as given in Table 1.

Analyzing the indices provided in Table 1, it is worth mentioning that, as a consequence of pandemic of 2020, a rapid decline of world economy at 3% is expected, and it means that in the world will be produced USD 2.7 trillion fewer goods and services, than in 2019. For Ukraine the new crisis will become a blow heavier, than for the rest of the world. Ukrainian economy is small and open. It means that it critically depends from the situation in the world, in particular from the demand and offer for the goods of Ukrainian export (metal and agricultural production) and price on the goods imported by Ukraine (mainly energy and finished products, such vehicles, domestic appliances, computers etc.).

According to forecast of IMF, Ukraine's GDP will decrease at 7.7% because of coronavirus compared to 3% decrease of world GDP. A post-crisis reconstruction for Ukraine will be longer than for the rest of the world: experts predict 3.6% GDP growth for Ukraine in 2021 as opposite to world economy growth at 5.8%. It means that new crisis will just make larger a rupture between Ukraine and developed countries both in aspect of competitiveness of economy and in that life quality (International Monetary Fund, 2020).

Yet, here it should be noted that the following IMF's forecast bears but an assumptive character and could be quite uncertain, since it does not contain the data reliable and sufficient enough to predict the future of the world economy. It is so far known for a fact, that a decline of business activity in the world because of coronavirus appeared to be so significant that it has resulted in a record-breaking decrease of petroleum products consumption. In other words, the demand on oil has dropped drastically, and the price for American oil WTI (West Texas Intermediate) on April 20, 2020 became negative for the first time in its history.

Table 1:
Real GDP growth, percent change

	2019	2020 projections	2021 projections
World	2.9%	-3.0%	5.8%
United States	2.3%	-5.9%	4.7%
Euro Area	1.2%	-7.5%	4.7%
Middle East and Central Asia	1.2%	-2.8%	4.0%
Emerging and Developing Asia	5.5%	1.0%	8.5%
Latin America and the Caribbean	0.1%	-5.2%	3.4%
Sub-Saharan Africa	3.1%	-1.6%	4.1%
Ukraine	3.2%	-7.7%	3.6%

Source: International Monetary Fund (2020)

Nevertheless, the optimistic scenario promises a subside of the pandemic in second half of 2020 and consecutive growth of economy at 5.8% in 2021 along with the stabilizing of economic activity, what will be facilitated with policy of supportive measures.

Currently many countries face a multi-level crisis which includes a shocking load on health care domain, serious distress in economy determined by internal factors, rapid growth of external demand, reversal of capital flows and collapse of prices on stock goods. Under these circumstances the risks of aggravation of the situation prevail.

In many countries with developed economy affected by the pandemic (such as Germany, Italy, United Kingdom, USA, France, Japan) the relevant fiscal and budgetary measures were taken quickly on a massive scale. To illustrate, USA has second largest number of coronavirus cases in the world after China, which has become the epicenter of coronavirus spread. To overcome the economic difficulties caused by the epidemic Donald Trump's administration provided USD 500 billion for two-stage direct payments to physical persons-tax-payers. Ministry of finances of USA also injected additional USD 300 billion of loans in small business and USD 50 billion to support the aviation domain. The general set of USA activities to fight coronavirus and protect economy equals more than USD 2 trillion (White House, USA, 2020).

Many countries with the emerging and developing markets (such as India, Indonesia, China, South Africa) have also started either giving a considerable state support to heavily affected economic domains and employees, or declared the intention of such assistance. Naturally, the extent of measures taken in fiscal policy and state financing should be increased, if the downtimes in economic activity shall be long or the increase of the activity will appear too sluggish after lifting of the restrictions. Countries which face difficulties in attracting finance to fight the pandemic and its aftermath shall require an external assistance. Ukraine is one of such countries and it's the reason why the Council of the European Union on May 20, 2020 took a decision to provide EUR 3 billion of macro-financial aid to ten countries of Eastern European Partnership in the domain of extension and neighborhood. In particular, it's planned to provide to Ukraine at very favorable condition loans equal to EUR 1.2 billion (European Union, 2020). The aid of EU will allow these countries to satisfy their most urgent needs in financing, which were resulted from the impact of COVID-19 pandemic. Along with the assistance provided by IMF these funds could contribute to the increase macro-economic resilience and go towards creation of the area, where the resources could be allocated for protection of citizens and mitigation of serious negative social and economic effects of the pandemic.

Ukraine entered current crisis with a safety margin relatively higher than it had had before, but for the minimization of possible risks and losses the cooperation with IMF is essential. Their forecast requires an approval by the Board of Governors of IMF of the new program of cooperation with Ukraine and getting of first disbursement of funds which equals about USD 2 billion already in II quarter of 2020. Compiling of a new program of cooperation with IMF makes a prior prerequisite of preserving of macro-financial stability in Ukraine in the period of the world crisis.

First, it will enable Ukrainian government to cover the deficit of state budget, which had increased up to 7.5% of GDP (National Bank of Ukraine, 2020). Ukraine will be able to come through the period of a peak debt burden with confidence, and will also get an ability to finance the measures for financial support of business and population under the circumstances when business activity declines, employment rate and tax revenue to the state budget decrease, and foreign investors leave the developing markets.

Secondly, financing obtained from IMF and other official international partners will also help to sustain international reserves of Ukraine at the level of USD 27-29 billion in present and following years depending on «coronavirus situation».

Currently WHO reports the situation with the spread of coronavirus infection all around the world. Unfortunately, in spite of the efforts applied by many countries the disease is still affecting more and more population of the world.

In Ukraine the pandemic of COVID-19 was peculiar for its rapid spread, towards the end of May 2020 a decline of the pandemic had been visible, but the government of the country has made a decision to extend a period of quarantine on the whole territory of Ukraine until December 31, 2020 due to worsening of the situation.

As indicate current circumstances, most countries in the world and Ukraine in particular appeared to not to be ready to meet the challenges like pandemic of coronavirus infection, against

which there are no drug treatment of efficient measures for its prevention. The effects of quarantine in Ukraine were especially tangible for enterprises, medicine and education.

So, what kind of problems faced Ukrainian enterprises and shall they be able to preserve the economic resilience of their activity under the present circumstances?

In III quarter of 2020 headline inflation remained almost unchanged, staying then outside the lower limit of 5% target range. At the same time, inflation has somewhat retreated in September (to 2.3%) following the increase of foods supply. This factor has eliminated a counter pressure which other factors exercise on prices: currency depreciation, increase in the price of energy, recovery of economic activity and consumer demand. A core inflation has also retarded insignificantly (down to 3.1% in September). These factors have outbalanced a counter pressure on the prices, which pressure had been determined by depreciation of hryvnya and spike of excessive demand on certain goods during the first weeks after the imposing of quarantine measures introduced to fight the spread of COVID-19 (National Bank of Ukraine, 2020).

Introduction of limitations aimed to prevent the extent has caused a significant fluctuation of prices on goods and services. A quick evaluation of price situation made by the National Bank of Ukraine (NBU) by method of web scrapping has attested that prices on certain foods and personal hygiene goods really have risen quite rapidly at the background of excessive demand in the second half of March. Yet from April the price growth has halted and the prices for certain goods even dropped.

According to the forecast of the National Bank of Ukraine, the GDP projection for 2020 remains same - decrease of GDP shall equal about 6%. The main factors of recession became the decrease of investment and external demand and also the expected decrease of the volume of gas transit. Imposing quarantine in the mid of March 2020 with consecutive prohibition of certain activities has affected mainly the service industries (tourism and entertainment in particular), trade and transport (according to the estimates of the National Bank of Ukraine, its direct share in the reduction of real GDP made -0.4%). For Ukraine external demand was halted by rapid decline of economic activity in the world against a background of spreading COVID-19. The spread of coronavirus exercised neutral influence on the export of goods, yet along with the reduction of world prices on energy it has caused reduction of imports of goods and services. In March began an outflow of capital from Ukraine primarily due to internal surge of demand on foreign currency. As a consequence, international financial reserves at the end of March 2020 went back to the level of the end of 2019 - USD 24.9 billion.

The pandemic has also produced a moderately negative influence on indices of employment and income of the population in II quarter. In particular, level of unemployment in Ukraine in II quarter of 2020 has augmented to 9.9% compared to 8.6% in I quarter. According to the State Center of Employment (SCOE), the general number of the unemployed in Ukraine is 1.7 million persons. The number of employed population aged 15-70 years equaled 15.6 million persons in the second quarter of 2020. From the moment of quarantine start a status of unemployed was given to 444,400 Ukrainians, and total number of the unemployed on August 31, 2020 has constituted 477,700 citizens - it is, by 73% more, than on the same date of the past year (State Employment Center of Ukraine, 2020). According to the forecasts of the National Bank of Ukraine in III quarter of 2020 the rate of unemployment caused by quarantine will grow by 12% in seasonally corrected aspect. The general amount of arrears in wage in Ukraine has grown in September by 4.1%, and by 17.4% for the period from January to September of the present year and equaled 3.561 billion hryvnya for October 1, 2020.

The general amount of arrears in wage of economically active enterprises has increased by 5.5% and constituted 2.319 billion hryvnya for October 1, 2020 (State Statistics Service of Ukraine, 2020).

The logical consequence of the processes described above is a deficit of Ukrainian state budget, particularly in the sector of fiscal revenues.

The income of Ukrainian state budget in May 2020 poky constituted 73.38 billion hryvnya, which is by 2.2% less than the target figure and by 29.6% less than the budget figure for the previous year. For the period from January 2020 to May 2020 the state budget received 388.22 billion hryvnya, which is by 10.1% less than the target figure and by 9% less than the than the budget figure for the same period in the previous year (The State Treasury Service of Ukraine, 2020).

In particular, customs revenue for May 2020 equaled 18.6 billion hryvnya, which is by 14.2% less than the target figure and 32.2% less than the than the budget figure for May 2019. According

to the figures for five month the customs' revenue displays 24.7% of slippage from the expected amount of revenue 19.4% slippage from the level of the previous year, which makes 103.44 billion hryvnya of losses in total. At the same time, the amount of tax revenue to the budget in May has exceeded the target figure by 9%, remaining at the same time by 8.5% lower than the amount of tax revenue for may 2019 - 43.16 billion hryvnya. According to the figures for the period from January to June the tax inspection of Ukraine has a 4.3% deficit of fiscal revenues, while the general amount of revenues equals 180.67 billion hryvnya, which is by 4.8% more than the amount of fiscal revenues collected during the period from January to June 2019, according to the information provided by State treasury service of Ukraine.

As we can see, the entrepreneurs, especially the representatives of small and medium enterprises faced the hardest situation. Before imposing quarantine, the government of Ukraine approved a few important decisions for business, yet the efficacy of these measures is dubious.

To illustrate, Ukrainian government exempted all physical persons-entrepreneurs from payment of the unified social tax (UST) and ground rent, suspended temporarily the fines for late payment of UST and established a moratorium on audits on enterprises until July 1, 2020. Also it was taken a decision to cancel the main fines and duties for violation of fiscal regulation by enterprises during the period from March 1 to May 31. The reductions predicted for Ukrainian economy due to the pandemic and global crisis equal -7.7%. Quarantine measures have caused decline of business activity, consumption and employment. Another significant problem is reduction of global demand, which contributes to limitation of export abilities of the. So the scenario for the development of events for Ukrainian business is very pessimistic. Business closures and reduction are inevitable and they will cause a chain reaction in the whole business sector. It is obvious that small business will suffer the biggest damage, but medium-seized and large business also prepare for optimization and forced reduction of staff.

By contrast, the government of USA, which has the most powerful economy in the world, also takes various measures to fight the effects of COVID-19, specifically in the aspect of support of entrepreneurs and ordinary citizens. The policy of business support in America is somewhat different from that one in Ukraine, as for American government did not just cancel taxes, but rather offered to businessmen loans soft loans: to illustrate, the government offers to small and medium-seized business soft loans for 30 years at the medium rate of 3% with the possibility of determent of payment for one year. The businessmen could use this money to pay the arrears in wage, accounts payable and other accounts receivable. Nevertheless, in USA, same as in most part of countries with developed economies, business activity did not cease entirely. Those businessmen who did not fire a single employee for the period of quarantine downtime shall be exempted from paying the loans' interest. Families, which receive an annual income less than USD 100,000, and where one or more family members lost their job, the state will pay USD 1,000 for each family member for the period of quarantine (White House, USA, 2020).

Other countries also provide a substantial support to their entrepreneurs. In Spain soft loans were provided to business, while in Italy tax and loan benefits were granted and employees in particular received financial aid equal to EUR 100. The business support in France equals EUR 1,500-2,000 per employee, and up to y EUR 9,000 in Germany.

But the key difference between these countries and Ukraine is the fact that the above-listed countries have sufficient stabilization and reserve funds to cover all these expenditures.

Currently one third of Ukrainian entrepreneurs report loss of 50-75% of their benefits, and other 44% sustained losses of fewer than 50% of income (State Statistics Service of Ukraine, 2020). Also for most of enterprises of Ukraine a remarkable growth of accounts receivable is peculiar, and 7% of enterprises came to a near halt. Since the beginning of the quarantine in Ukraine, which was imposed because of pandemic of coronavirus disease Covid-19, 12,000 out of 30,000 enterprises registered as public catering establishments were liquidated as subjects of economic activity. According to State Statistics Service of Ukraine, there were up to 30,000 public catering establishments counting from small cafés/bars up to big restaurants. 12,000 out of these 30,000 are liquidated. It means they are not closed for the period of quarantine, but were actually liquidated.

Only 14% companies faced no changes in work or even have a benefit growth. Most of the companies, 48% in particular, have succeeded to preserve staff's salary unchanged, whereas 29% of companies were forced to reduce the amount of wages, and other 19% had to leave their employees without pay. 59% of enterprises were able to preserve all working places for their

personnel. Other 33% of companies had to make a reduction of their staff, and 6% are even re-recruiting new staff at the moment. The business is ready to get back to work, as for 54% of companies will restore their off-line activity within the period from April to May. At the same time 60% of entrepreneurs consider an option of full or partial transfer to work from home (State Statistics Service of Ukraine, 2020). In our opinion, the enterprises will need more than one year in order to reach a pre-quarantine level of development.

The pandemic of coronavirus infection COVID-19 has influenced first of all people's behavior and their consumption preferences. IMF suggests that new economic crisis can change consumer behavior radically. For instance, long stay on quarantine and work from home can create the situation, when some part of office work will become remote. It will reduce a demand on paper, office equipment, and rent of office spaces. As a result, the market of real estate will also change: a demand on commercial premises will drop, and value of rent of living quarters are likely to augment (as for in such way lessors will compensate for the loss of more profitable clients from commercial sphere). Certain corporations and governments have also sustained changes, since a necessity to impose quarantine has arisen. A significant influence was made on production and service sector, on logistical workflows and on temporal recession of export and import.

For today none analytical center in the world which could assess the extent of transformations. At least, while the panic does not end and the trends become predictable again. Currently world economy faces an acute necessity of recuperation and tendencies for growth. Stock markets had been overloaded with money supply, the companies' assessment indices were overstated by several times compared to fundamentals. The necessity of correction became pressing. It's particularly under these circumstances that has appeared a so-called «media-coronavirus», which has become at the same time a catalysator of economic crisis and a factor which has halted an advance of the world economy (Stein & Eran, 2020). Currently, the way out of crisis is not possible without assessment of influence of the virus pandemic. The world economy is now in the state of «freeze», so the annual recession of world GDP is highly probable.

However, coronavirus pandemic has its own specific features: first, its level of critical risk does not exceed that of other virus diseases, also in the aspect of mortality, as for from 40% to 60% of world population are likely to catch coronavirus infection. Many people develop a light form of coronavirus infection, which does not bring any complications. Unfortunately, people of advanced age make a group of risk. High mortality rate is specific for this age category, but this rate does not reach 100% and there are many cases of successful convalescence. It is also worth mentioning there is a risk of a few waves of coronavirus in one year, a factor intrinsic to all virus epidemics and pandemics, furthermore, the situation is aggravated by existence of 150 known for today strains of the virus, which are apt to mutate constantly (World Health Organization, 2020).

What kind of changes will coronavirus introduce in the world? In our opinion, the world demographic situation will change first, thus causing the change of median age of the world population. Bioengineering has chances to become a new hype-exciting domain of the world economy. The structure of world economy and logistic will change, same as key locations of producing facilities, including those facilities which were transferred from China to other regions. The sector of digital economy will develop and its growth dynamic will exceed the growth in other domains.

There is also a possibility of changes in the structure of demand and supply in world economy. The risk of fall of existing financial system also persists. The countries will try to create conditions for full self-sufficiency (complete sustainment with foods, energy, medicines, and creation of independent producing facilities). And there also is a possibility of global GDP growth after the crisis is gone, and dynamic of this growth will be rapid.

With regard to the above-stated we can make a certain summary concerning the influence of coronavirus infection COVID-19 on economic resilience of Ukrainian enterprises in the aspect of separate economic sectors.

IT

The sphere of informational technologies sustained virtually the least impact of the pandemic due to its specificity. Yet experts predict a deceleration of IT growth and suspension of large-scale programs, primarily because of implementation of strict quarantine measures.

Telecommunications

This market is generally expected to preserve its revenues, since the population does not stop using communication devices. Yet the sector could sustain certain damages caused by

non-use of roaming and closing of stores. Devaluation can also contribute to increase of the value of networks expansion including 4G, what can create in the near future a growth of product cost for consumers. Staff leaves due to quarantine or the disease itself and possible delays in delivery of Chinese equipment can cause a slowing down in the expansion of telecommunication networks.

Agriculture

It's one more sector of Ukrainian economy which has chance to survive the crisis without significant damages. Demand on food tends to grow and farmers currently do not have problems with preparation to planting season. Hence, Ukrainian products shall be in demand on foreign markets.

Infrastructure

This sector will suffer the biggest losses, as it had been expected. The limitations imposed on transport work decrease the profits, so both road carriers and «Ukrzaliznitsya», which numerous rides were cancelled, will suffer damages. The airspace shut-down affects also Ukrainian and world aviation. A so-called taxi-market will lose less, yet the decrease of demand will also take place.

Energy

Due to the decline of financial activity of population the sector will sustain significant damage. The decrease of electricity production will lead to growth of the share of so-called «green energy», which has two specific risks. The first risk nears a technological character, as for means a complexity of dispatching of power system. The second risk is increase of the electricity value for consumers which will lead to the increase of the payments due.

Construction

The devaluation of hryvnia will motivate investors to increase their investments in real estate construction in order to get rid of the currency savings. At the same time, a shortening of investments in construction of non-residential buildings is expected.

Metal industry

As it is known, the prices for metal industry products are related with the oil prices, so this sector will also sustain damages. To illustrate, the level of iron ore prices depends directly from export to China, which will reduce drastically due to the influence of coronavirus infection. Also in Ukraine amount of production of cast iron, ordinary and rolled steel are decreasing gradually. 2019 became for Ukraine a year with minimum production these goods for the whole period of independence.

Labour market

The first problem caused by the pandemic of coronavirus that Ukrainian employer will encounter is a problem of labour remuneration. It concerns all Ukrainian enterprises without any exception, which will be affected by either establishment of quarantine or from economic crisis (started from the enterprises of from the sector of public catering and entertainment up to trucking companies, energy companies and metal industry).

Hence, we made certain projections concerning the prospects of development of economic resilience of Ukrainian enterprises.

1. The quarantine will determine a significant drop of business activity, the country's GDP will drop significantly.
2. The business will reduce its expenditures and shall improve its effectiveness.
3. Enterprises and organizations will make an optimization of staff.
4. Food industry will be the least affected compared with other sectors of Ukrainian economy.
5. There is a possibility of growing of agricultural domain in Ukraine after recovering from the crisis.
6. IT-sector will have prospective for growth, and the number of people employed in this domain and its share in GDP will have a tendency for growth.
7. Consumption of energy will reduce for a certain period because of the drop in industrial output.
8. Ukraine has all chances to survive the crisis with damages lower than other countries will have, but only in case of fulfillment by Cabinet of Ministers and National Bank of Ukraine of efficient anti-crisis program.

Essential factor to ensure economic resilience of Ukrainian enterprises is also disbursement of 190 million of funds by European Commission to support Ukraine. Thus, support of Ukrainian economy and of small and medium-seized enterprises is sustained via ensuring liquidity also by

means of international financial institutions. Also a program of financial support equal to 25 million euro for small farmer households was established.

Yet, in spite of the deleterious effect that virus pandemic has produced on economic resilience of Ukrainian enterprises, we have also discovered a few positive aspects.

First of all, Ukrainian business despite the hard development conditions possible will reduce its expenditures and will thus improve its efficiency. It specially concerns optimization of the staff.

Ukrainian business will eventually perceive a distant work as productive and viable method for management of its staff.

One more positive influence aspect of COVID-19 on economic resilience of Ukrainian enterprises is their refusal from a single foreign supplier of production. Ukrainian enterprises from now on neither will develop their business around the only source of supply from a single country. In this case it should be noted, that diversification of suppliers makes a crucial necessity in order to reach success in a long-term perspective.

The next aspect is a presence of cash. With having sufficient money supplies in banks, resonated decisions are taken and money is invested better, as for it makes a foundation for a stable financial situation.

The next point is, that governments of many countries and Ukrainian government in particular disbursed significant amount of funds to fight the pandemic. These factors ultimately will encourage the development of technical companies, implementation of start-ups in the domain of health-care and search for vaccine or other methods for treatment of this type virus or its other species.

And after all, the most valuable influence of the quarantine for Ukrainian enterprises (especially for small business) is gaining that precious experience, which will help while managing of its economic resilience taking to account a risk of functioning in conditions of global crisis.

5. Conclusions

Having estimated the influence of coronavirus pandemic COVID-19 on economic resilience of Ukrainian enterprises, we came to conclusion that the main problem of Ukrainian business nowadays is compete unpreparedness and poor knowledge of strategies of functioning in conditions of force majeure of global scale. It's because of this reason Ukrainian enterprises in order ensure economic resilience should conduct constant audit of risks; create a detailed business plan taking into consideration possible fluidity of the situation and appearing of new information about the spread of coronavirus; testing possible scenarios in case of halt of continuous business processes; facilitate iteration and renewal of business, which must be flexible, adaptive and ready to adjust to rapid changes both on national and world level.

The relevance of prospective for further research in this domain is determined by the necessity of the development of organizational and economical mechanism of managing economic resilience of enterprises, which function under the consequences of global crisis.

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