“Developing a system of anti-crisis measures for Ukraine’s economy in the spread of the coronavirus pandemic”

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ARTICLE INFO	Bohdan Danylyshyn and Ivan Bohdan (2020). Developing a system of anti-crisis measures for Ukraine’s economy in the spread of the coronavirus pandemic. *Banks and Bank Systems*, *15*(2), 1-15. doi:10.21511/bbs.15(2).2020.01
DOI	http://dx.doi.org/10.21511/bbs.15(2).2020.01
RELEASED ON	Friday, 10 April 2020
RECEIVED ON	Thursday, 12 March 2020
ACCEPTED ON	Wednesday, 08 April 2020

JOURNAL	"Banks and Bank Systems"
ISSN PRINT	1816-7403
ISSN ONLINE	1991-7074
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
33	4	0

BUSINESS PERSPECTIVES

LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine

www.businessperspectives.org

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DEVELOPING A SYSTEM OF ANTI-CRISIS MEASURES FOR UKRAINE'S ECONOMY IN THE SPREAD OF THE CORONAVIRUS PANDEMIC

Abstract

The new global financial and economic crisis is caused by the spread of the coronavirus epidemic, the reduction in aggregate supply, the escalation of trade wars, and the outflow of capital from emerging markets. This requires national macroeconomic regulatory authorities to take prudent measures to protect national economies from destabilizing externalities. Therefore, the purpose of the article is to justify and develop a priority system of stabilization policy and anti-crisis measures to counter the spread of external shocks in the national economy, stabilize it, and create conditions for its further recovery and sustainable economic growth. To achieve this aim, the existing theoretical sources and research materials of international organizations were systematized, the legislative and regulatory framework in Ukraine was generalized, and statistical methods, a historical method, analysis and generalization were also used. As a result, the channels of impact of external shocks on Ukraine's economy were identified, and the areas of internal vulnerability of the national economy that could significantly increase the negative effects of externalities were determined. The knowledge gained has become the basis for formulating conceptual directions of crisis management and developing a system of measures to counteract crisis phenomena, which include the monetary policy tools of the National Bank of Ukraine, the structural and fiscal policy of the Government, as well as the banking regulation and capital control policies.

Keywords economic crisis, stabilization policy, monetary policy, fiscal incentives

JEL Classification H12, E58, E61, E62

Received on: 12th of March, 2020
Accepted on: 8th of April, 2020
Published on: 10th of April, 2020

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Conflict of interest statement:
Author(s) reported no conflict of interest

INTRODUCTION

The spread of the coronavirus epidemic throughout the world, social distance, closing borders, increased protectionism and the secondary effects of slowing economic activity and destabilizing financial markets – all these have a negative impact on the global economy and cause a crisis in many countries. The global nature of restrictive measures and the decline in aggregate demand affect both transnational corporations and small enterprises operating solely in the domestic market.

The spread of the coronavirus epidemic has perturbed turbulence in global financial markets, which were already tense as a result of ongoing trade wars. Amid concerns about the impact of restrictive measures on the course of economic processes, investors' concerns began to grow, which reduced their risk-taking. The volatility index of global financial markets rose to a historically high level, exceeding that of the 2008 global crisis (Trading Economics, 2020).

The synchronous economic downturn in many countries of the world, the imbalance of commodity and financial markets in response to the spread of the epidemic, once again after the 2008–2009 global crisis, revealed systemic shortcomings in the model of economic liberalism and minimizing the influence of the state on social processes.

In such conditions, the vital tasks foreconomic science and practice are developing the theoretical and methodological framework of a new crisis management system, as well as finding adequate tools and measures to maintain demand and economic activity, and provide medical and social support to the population. New challenges for central banks were linked to the need to ease monetary conditions for business entities, improve banking regulation, and restore elements of the capital control system in order to block instability.

1. LITERATURE REVIEW

The frequency of financial and economic crises show that the Rational Expectations Theory and the Efficient-Market Hypothesis are artificial and far from reality: market actors do not have reliable information and cannot predict the development of future events, so they can either fall in a state of collective euphoria (when all subjects underestimate certain risks), or collective depression (when risk-taking decreases sharply). Under such conditions, relying on the "invisible hand" of the market leads to an alternation of boom and bust cycles and negatively affects the economy.

Meanwhile, economic theory proves that markets can operate effectively only if relevant institutions ensure their activity. According to some scholars, capital liberalization and financial liberalization are not optimal for maximizing public welfare when market institutions are ineffective (Stiglitz, 1994, Caprio & Hanson, 1999; Hellman, Murdoch, & Stiglitz, 1998). Given the weakness of market institutions, the unhealthy macroeconomic environment and the lack of an adequate regulatory system, the activities of financial intermediaries and the free movement of capital between borders have no obvious advantages. In this context, potential investors turn intospeculators who find their areas for investment more profitable than investing in real (industrial) assets (Sapir, 2000).

Macroprudential control over financial institutions is one of the key elements of a system for identifying imbalances and vulnerabilities in the financial sector. From a macroprudential perspective, risks depend on the collective actions of market participants and are endogenous. In contrast, the microprudential approach ignores such relationships because it is based on the assumptions about exogenous risk. Focusing solely on the resilience of individual financial institutions carries the risk of the so-called "wrong composition", that is, efforts that are balanced, in the opinion of a particular subject, in response to exogenous risks, are not always optimal in terms of the response of a system, whose internal mechanisms are sensitive to the effects of risk factors.

Macroprudential approach focuses on risk accumulation during periods of economic recovery in order to counteract the materialization of these risks during a recession. Lim, Columba, Costa, Kongsamut, Otani, Saiyid, Wezel, and Wu (2011) argue that the design of a macroprudential regulation system should include elements that will focus the system on risk sources: a) liquidity related instruments: limits to open currency positions of banks, limits to maturity mismatches and minimum reserve requirements; b) equity related instruments: countercyclical bank capital requirements, dynamic valuation for credit risk reserves, profit sharing restrictions.

Dell'Ariccia (2009) justified the need for prudential regulation with a countercyclical nature. In 2010, Claessens, Dell'Ariccia, Igan, and Laeven (2010) proposed the dynamic rationing concept, which envisaged an increase in capital adequacy ratios in times of bank credit growth and their decline in periods of lending slowdown. During economic upturn, the ratios of provisions for credit risks increase, and in times of economic downturn, the opportunities for using accumulated reserves are facilitated. Experts agreed that an effective system of macroprudential regulation should

http://dx.doi.org/10.21511/bbs.15(2).2020.01

comply with the following principles: fullcoverage, focus on incentives for market agents, and complementarity of market discipline and government regulation.

Capital control. Schmukler (2003) argued that the increase in the frequency and depth of financial crises in financial globalization is due to the following factors:

- *weaknesses in the international capital market*, which generate herding behavior of investors, speculative attacks, irrational actions, bubbles, etc. Information asymmetry sometimes triggers a chain reaction of the financial crisis, even in countries with sound macroeconomic background (for example, if investors find the exchange rate too high, they resort to speculative currency attacks and provoke a balance of payment crisis even if there are no economic preconditions for such a crisis);

- *contagion effects* or transmission of financial shocks across countries under unregulated cross-border capital movements. Panic and herd behavior are mechanisms for transmitting financial shocks across countries. The herd behavior of investors is based on the information asymmetry: the inaccessibility of information or the high cost of obtaining it make investors inclined to forecast price parameters taking into account the reaction of other market players. Therefore, the emergence of financial turmoil on one part of the globe is almost immediately transferred to another part – to the financial markets of countries with similar social and economic conditions.

According to Soros (1998), keeping domestic financial markets fully open to the troubles of the international financial markets can lead to greater volatility than what a country dependent on foreign capital can withstand; therefore, to prevent instability, it is better to prefer some forms of capital control.

Capital control is seen necessary even in the context of poor protection of property rights in low- and middle-income countries. Weaknesses in the corporate governance system and the legal system allow interest resident groups to "tax" or use the capital of other investors. In contrast, foreign investments by residents of these countries cannot be appropriated abroad. This causes over-investment in assets of developed countries and chronic under-investment in poor countries. In this context, control over capital outflows becomes the best possible in terms of retaining internal savings within the jurisdiction of their formation and pursuing economic development goals (Tornell & Velasco, 1992).

In many low- and middle-income countries, the state's desire to limit the outflow of individual savings is a strong motivation for capital controls. Some scholars argue that using capital controls, countries with low capital-labor ratio must offset the numerous distortions that force private investors to prefer foreign investment, even when the expected return on domestic investment is higher.

In 2009, the United Nations' Commission of Financial Experts substantiated the key role of regulations of cross-border capital movements to ensure macroeconomic stability. Experts say that countries that have fully opened up their balance sheets and joined the liberalization of the financial markets are among those most affected by the global crisis (Stiglitz, 2010).

In a cross-country dimension, Ostry, Ghosh, Habermeier, Chamon, Qureshi, and Reinhardt (2010), IMF experts, found a negative correlation between capital controls before the global financial crisis and the fall in production during the crisis. Brockmeijer, Marston, and Ostry (2012) stated that emerging markets with a high degree of financial openness were more affected by the global financial and economic crisis, especially if they did not regulate the cross-border movement of capital mediated by banks.

Fiscal and monetary policies are classic components of a stabilization policy that help support aggregate demand and productive activity in times of economic uncertainty. Stimulative monetary policy helps support private consumption and production, facilitating credit availability, while stimulative fiscal policy allows, both directly and with multiplier effects, expanding aggregate demand. Meanwhile, the main focus of structural policy is on supporting and developing aggregate supply.

Kandil (2000) proved that significant fluctuations in the implementation of fiscal and monetary policies in the long run harmed the opportunities for stabilizing economic growth at the equilibrium level, and fluctuations in monetary policy led to an output decrease.

Atolia, Loungani, Marquis, and Papageorgiou (2017) argue that in poor commodity-dominated countries, improving overall productivity and accelerating GDP growth are not possible without an active structural policy by the state and its focus on increasing the share of manufacturing and public employment.

Cherif and Hasanov (2019) argue that, despite the prevalence of state "failures", the main constraints to sustainable economic growth in poor countries are market "failures", which result in the production factors of the economy being channeled into low-productive sectors (agriculture, extractive industries, services), and this situation makes it impossible for the economy to escape from the poverty trap. Nowadays, IMF experts recommend that poor countries with a raw material economy implement technological and innovation policies based on the East Asian countries' pattern. The basic principles of such a policy should be: the use of public intervention techniques aimed at creating new capacity in technologically complex industries and increasing the interest of private business in directing resources to these industries.

In most cases, fiscal incentives have a positive effect on both aggregate demand and aggregate supply in the economy. Demand effects arise from government funding for investment costs, increased social transfers, and reduced revenue and income taxation. The positive effect on aggregate demand is realized with a multiplier effect, as population clusters that benefit from reduced tax pressure or increased public spending increase their own expenditures, which in turn increases the incomes of other economic entities and causes an increase in aggregate expenditures. State programs to develop infrastructure and reduce tax pressure on labor income have a clear supply effect.

IMF experts have argued that, at the stage of economic downturn, fiscal multipliers (such as the ratio of changes in output, generated by changes in budget deficits, to changes in the budget deficit itself) are usually greater than multipliers at the economic recovery stage (IMF, n.d.). In particular, Baum, Poplawski-Ribeiroe, and Weber (2012), based on data for the G7 countries in the period 1970–2010, found that in times of negative GDP gap the fiscal multiplier was significantly higher than in times of positive gap. The researchers found that the budget expenditure multipliers that began to change during the recession ranged from 1.6 to 2.6 in the 1st year, and those that began at the stage of economic expansion – from 0.3 to 1.6.

Mineshima, Poplawski-Ribeiro, and Weber (2012) reviewed 37 empirical studies and found that the value of the public expenditure multiplier varied from 0 to 2.1 and averaged 0.8, and the revenue multiplier ranged from –1.5 to 1, 4 and averaged 0.3.

It should be borne in mind, however, that to achieve positive effects, fiscal incentives should not pose a threat to debt sustainability, since a negative impact on financial markets, interest rates and consumer spending can reduce to nothing all government efforts to stimulate economic activity. To prevent a negative response of financial markets to a stimulating fiscal policy, it is important to establish effective programs for informing the public about the motives and expected consequences of public policy, and to prevent the explosive growth of public debt.

Therefore, in a crisis, the task of fiscal policy is to ensure the proper balance between using short-term opportunities to support the economy and maintaining debt stability in the medium term.

2. BASIC PROVISIONS

High openness of the Ukrainian economy, the low incomes of its entities, the overly tight macroeconomic policies of recent years and the unresolved key structural problems of the economy have affected the speed and depth of the external shocks penetration into the Ukrainian economy.

According to various authors, the main channels of influence of external shocks on the Ukrainian economy are balance of payments, public finance, economic activity and social tension.

http://dx.doi.org/10.21511/bbs.15(2).2020.01

Balance of payments channel means a reduction in exports and imports of goods (primarily energy), remittances, financial account receipts. The public finance channel manifests itself through the withdrawal of non-residents from the government securities market, the loss of access to external financing markets, and the failure to meet planned budget revenues. The economic activity channel implies a decline in business activity and deterioration in consumer sentiment. The channel of social tension includes the spread of coronavirus disease, rising unemployment (including due to the return of labor migrants), falling incomes, and commodity shortages.

The overall impact of reduced exports and imports on the trade balance can be considered positive for several months and neutral by the end of the year. Reducing remittances of migrant workers and narrowing opportunities for foreign earnings will be the most pressing issue for Ukraine's balance of payments in 2020. Economic slowdown in Europe, the strengthening of migration rules and the introduction of quarantine measures can force some migrants to return to Ukraine. According to the authors, reduced money transfers can amount to about USD 5 billion by the end of the year, or about 40% of last year's revenue (USD 12 billion).

The government and corporate borrowers will lose access to external capital markets at least until the end of the active phase of the crisis due to financial market turbulence and continued quarantine, and the cost of borrowing for them has already increased significantly. Loss of access to external financing and low confidence in the national currency have already caused a moderate devaluation of the hryvnia, which is supported by foreign exchange reserves. A critical drop in international reserves while maintaining free movement of capital and floating exchange rates can trigger a self-fulfilling expectations crisis with high rates of the hryvnia devaluation.

A crisis always arises as a result of a combination of the influence of certain destructive external factors (crisis triggers) and areas of weakness or internal vulnerability of the national economy.

It is established that the main areas of the current internal vulnerability of the Ukrainian economy, which cause it to be affected by external shocks, were created after the 2014–2015 crisis, namely:

- de-industrialization and low economic growth (especially since the second half of 2019);
- loss of national competitiveness and increase in trade deficit;
- decrease in the volume of bank lending to the economy and the shift of the banking system to transactions with government securities;
- strengthening the debt dependence of public finance and narrowing the tax base of the economy;
- unjustified strengthening of the hryvnia exchange rate in 2019 and insufficient amount of international reserves of the National Bank of Ukraine (NBU).

It was found that the fragility and the weakness of the Ukrainian economy in the face of powerful external shocks were largely generated by too tight macroeconomic policies (both fiscal and monetary) that constrained domestic solvent demand and inhibited investment activity.

According to author calculations, the "tightnessindicator" of real monetary conditions of Ukraineexceeds this figure in the neighboring European countries by five percentage points or more. This indicator was calculated based on data from the National Bank of Ukraine and the IMF in accordance with the European Commission's methodology (as a combination of interest rate effects and exchange rate changes) (European Commission, n.d.). Such an excessively tight monetary environment has been observed in the Ukrainian economy since the second half of 2018.

The tightening of fiscal conditions is evidenced by the fact that Ukraine's primary actual and cyclically adjusted fiscal balances have been insurplus since 2015 (IMF, n.d.a). This means that since 2015, the real economy takes a permanent structural hit from the decline in government demand and needs to be restructured in the new conditions of tight monetary policy and low domestic solvent demand.

The identified bottlenecks and destructive phenomena require immediate action by the Cabinet of Ministers of Ukraine and the NBU, both in introducing stimulus measures of macroeconomic policy and temporary restrictive measures to block destabilizing factors. In March 2020, macroeconomic regulators of Ukraine took a number of stimulating and restrictive decisions (Cabinet of Ministers of Ukraine, n.d.), which slowed the spread of crisis in the Ukrainian economy to some extent.

Given theoretical approaches to crisis management, the areas of vulnerability of the Ukrainian economy and channels of external shocks are identified, and a set of additional urgent crisis measures are determined that can be implemented by the Government and the NBU. They are as follows:

In the area of the NBU's policy to support economic growth:

- introduction of targeted long-term refinancing of banks (on preferential versus standard terms and conditions) to lend investment projects, small and medium-sized entities, as well as to expand the list of assets that can be used as security under such refinancing loans;
- refinancing loans secured by the mortgage loan portfolio of banks at a reduced interest rate;
- use of the NBU guarantee instrument and guarantee for bank loans to support strategically important state-owned enterprises and state investment (infrastructure) projects;
- a decrease in mandatory reserve of banks for foreign currency funds to attract and retain them in the banking system of Ukraine.

In the field of the monetary policy focus and tools:

- revising the medium-term inflation target and setting it at a level that takes into account shocks associated with the coronavirus epidemic, the effect of factors impeding the full functioning of the monetary transmission mechanism (underdeveloped financial markets, commodity markets, labor markets, etc.), and considers the empirical experience of emerging markets that have recovered from structural shocks;
- making changes to the procedure for implementing NBU currency interventions, in particular in terms of setting flexible dynamic limits of the acceptable exchange rate volatility;
- the use by the NBU's domestic government bonds (DGBs) as a monetary tool for regulating bank liquidity.

In the field of monetary and fiscal policy coordination:

- coordination of NBU activities in absorbing the banking system liquidity and the state of public finance and the need to place them in DGBs to finance the state budget deficit;
- resumption of the NBU's practice of buying and selling DGBs. Direct or indirect involvement of the central bank in government debt operations is a common worldwide practice in responding to a crisis force majeure and a means of preventing the collapse of the budgetary system;
- ensuring consistent exchange rate forecasts and other macroeconomic indicators used by the NBU and the Ministry of Finance in preparation of changes to the 2020 Government Budget of Ukraine.

In banking regulation and supervision:

- delaying the implementation of the Net Stable Funding Ratio;
- granting banks the right not to temporarily impair the quality of the borrower's debt service on loans restructured as a result of a decline in borrower income caused by the coronavirus epidemic;
- reduced risk ratio for the hryvnia denominated credit requirements to enterprises that produce medicines and medical devices;

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- delaying amendments to the process of managing problem assets in Ukrainian banks due to the high complexity of the changes planned;
- amending the procedure for using regulatory capital adequacy and LCR liquidity standards, as well as making changes to corrective measures for violating these standards;
- prohibiting banks from distributing profits in any form, except for directing profits to increase the authorized capital, reserve fund raising, covering the losses of previous years.

In the field of the central bank's restrictive measures (if necessary):

In 2019, private entities withdrew USD 6 billion from the Ukrainian economy in the form of acquisition of foreign assets (National Bank of Ukraine, n.d.). When the risks of instability in the foreign exchange market arise, it is advisable to take the following measures to prevent large-scale capital outflow and stimulate its reinvestment in the economy:

- obligatory sale of exporters' currency earnings and reduced terms for its return;
- setting limits for daily purchases of foreign currency by banks;
- enhanced control over contract-based foreign currency purchases of customers;
- tight control over the use of refinancing by banks in order to prevent its focus (indirect or indirect) on the purchase of foreign currency in the interbank market;
- taking temporary currency regulation measures provided by the current legislation.

In the field of the Government structural policy:

The key objective of structural anti-crisis measures is to preserve the economic capacity of the country and to ensure the state support for financing investment projects aimed at improving economy competitiveness and expanding its internal market, in particular:

- establishing a Stabilization Fund (with public and private capital), whose funds will be used for: providing loans for repayment, refinancing and/or servicing of loans to enterprises that have taken losses as a result of the coronavirus epidemic; cheaper loans to small and medium enterprises; developing domestic demand for goods produced for export by Ukrainian manufacturers, for which deterioration in the global environment is observed;
- extensive use of state guarantee instruments for targeted industrial development, innovation and infrastructure projects;
- tightened control over the activity of state banks' supervisory boards in the implementation of their respective development strategies for the respective banks in order to channel their credit resources to provide support for priority economic directions in accordance with these banks' specialization;
- research into the introduction of restrictions on the export of raw materials (in particular, agricultural and metallurgical) to create conditions for the development of related processing enterprises;
- setting up core activities of the Export Credit Agency and Ukreximbank to support domestic technological exports in terms of providing soft loans, insurance, and guarantees.

In the field of the Government fiscal policy:

- fiscal stimulation of the economy, support for aggregate demand, widening of the budget deficit to 5-6% of GDP, developing alternative scenarios of budget deficit and public debt management depending on the recession depth in the economy;
- revising the expenditure structure of the Government Budget for 2020, favoring functions and programs that have a high multiplier effect and are aimed at developing economic capacity and social capital. Desirable areas for optimizing the 2020 budget are:

a) an increase in health care expenditures;

b) a cutdown in spending on the judiciary, state governance functions, financing of fields with minimal social or multiplier effect;

c) increase in capital costs and strengthening their focus (in particular, in infrastructure);

d) raising spending on social protection for the public and support for the poor;

- introduction of tax stimulus measures: replacement of corporate income tax with distributed profit tax to stimulate internal investment; tax incentives for enterprises that are particularly affected by quarantine measures.

Cooperation with international financial institutions (IFIs) and official lenders should be based on mutual respect and a systemic approach. It is unacceptable to conclude agreements that provide financing in volumes that are incompatible with Ukraine's economic capacity, resulting in colossal reforms that are doomed to failure. Large-scale reforms must go along with large-scale financial support projects. This is the only way to restore a country's economic potential and ensure a steady increase in the standard of living of its citizens. Among the possible areas of cooperation between Ukraine and official creditors are the following:

- the IMF Extended Fund Financing;
- targeted investment and programmatic systemic loans from the World Bank, the EU, and partner governments;
- credit programs to combat the coronavirus epidemic: Rapid Financing Instrument (IMF); Immediate Support for COVID-19 Country Response (World Bank);
- a new US Government loan guarantee for Eurobonds to refinance a similar loan made by Ukraine in 2015.

In debt management policy, the necessary measures should be taken to protect the country from sovereign default on external commercial obligations. The announcement of a default will mean the inaccessibility of external financial markets for both the Government and corporations and banks. A possible consequence of default will be the blocking of Ukrainian exports to countries whose investors are affected by the default, as well as the seizure of property of state-owned companies abroad.

Default usually leads to drop in the living standards. Furceri and Zdzienicka (2012), based on data from 154 countries for the years 1970–2008, have shown that sovereign debt crises in the short term become a 6% reduction in real GDP.

Other debt management policy areas are:

1. Improvement and development of the government securities market: expanding the membership in primary auctions for DGB placement (involvement of non-bank financial institutions); the issuance of targeted international government bonds to finance the restoration of the national health care system and support measures aimed at overcoming the coronavirus epidemic and, in the long term, to support priority investment projects identified by the Government of Ukraine.

2. The simplified procedure for attracting population's funds into the foreign currency government bonds, abolishing the taxation of bond yields, issuing DGBs for the population without involving the intermediation of banks or minimizing their services. Attracting foreign currency borrowing of the population will allow obtaining alternative channels to cover the Government's foreign currency needs and reduce the external debt risks of public finances.

3. The use of state guarantee instruments to finance major infrastructure projects of national importance, lending to exporting enterprises and industries whose financial condition has deteriorated most due to the spread of coronavirus infection.

3. DISCUSSION

In March 2020, in response to the global challenges posed by the coronavirus epidemic, the International Monetary Fund and central banks

http://dx.doi.org/10.21511/bbs.15(2).2020.01

provided recommendations and took measures to counteract the crisis both globally and nationally.

The IMF has prepared a wide range of recommendations for central banks and governments on monetary policy, banking regulation and supervision, fiscal and structural incentive measures (IMF, n.d.b). For central banks, the IMF recommends softening the financial environment to support demand, ensure the continuity of credit support to the real economy and increase liquidity in the domestic and international financial markets. The instruments include: key interest rate cut, decree in the bank reserve requirements, the foreseeability of risky asset repurchase, the activation of repo transactions. For emerging markets, the IMF recommends paying more attention to regulating capital flows in the balance of payments financial account to counteract capital shocks.

The IMF draws attention to the importance of maintaining stability in the currency markets by allowing large-scale currency interventions, even in countries with flexible exchange rates. In banking regulation, the IMF emphasizes the need to keep balance between maintaining the stability of the banking system and economic activity.

During the crisis, the European Banking Authority (EBA) recommended the use of flexible approaches when conducting regulatory reviews and announced the postponement of the pan-European bank stress test (EBA, n.d.).

The European Central Bank (ECB) has launched a Pandemic Emergency Purchase Programme (PEPP) (a temporary program for the purchase of government and corporate securities) to counter the risks of monetary policy transmission disruption due to the spread of COVID-19. The ECB also lowered its refinancing rates for banks under the TLTRO III, the third phase of the Targeted Longer-Term Refinancing Operations, to encourage loans to non-financial corporations and households on easy terms compared to standard operations (ECB, n.d.).

Ukraine's economic climate. Unfortunately, on the eve of a new global financial and economic crisis, Ukraine's economy has a number of weaknesses and imbalances that have exacerbated its vulnerability to external shocks.

Negative trends of socio-economic development of Ukraine have been observed since mid-2019. In 2019, the real GDP growth rate of Ukraine slowed to 3.2% (against 3.4% in 2018), which is much lower than the average in the world in the emerging markets (where growth was observed by 4.5% in 2018 and 3.7% in 2019). While in the first quarter of 2019 real GDP of Ukraine increased by 2.9%, in Q2 – by 4.7%, and in Q3 – by 3.9%, then in Q42019, it accounted for only 1.5% against the corresponding quarter of the previous year (State Statistics Service of Ukraine, n.d.).

According to the 2019 results, industrial production decreased by 0.5% (for the first time in the last four years). In other sectors of the real economy (except construction and retail trade), there was a rather moderate growth – agricultural production increased by 1.5%, turnover of goods by 2.1%, and wholesale turnover grew by 0.1% (State Statistics Service of Ukraine, n.d.). Meanwhile, inflation rate fell to a level below the NBU target range, and industrial producer prices to below zero, indicating signs of complete stagnation in the real economy.

Particularly threatening is the fact that, in the moderate real GDP growth, the dominant share is held by industries that do not fall within the country's industrial core and, because of their modus operandi, pay a small share of taxes in terms of value added. Thus, if in the 2018 growth of gross value added (GVA), agriculture, industry and construction amounted to more than 40%, in 2019 their contribution was less than 20% (calculated according to the State Statistics Service of Ukraine, n.d.). Meanwhile, industry recorded a negative contribution to growth, and the share of financial, business and other commercial services in the structure of GVA growth increased by 2 pp (up to 43.2%) (Figure 1).

The situation with foreign trade is also quite alarming. In 2019, the foreign trade balance for goods and services reached the highest negative value in the last six years – USD 12.4 billion (–8.1% of GDP). One of the main reasons for this is the decline in the competitiveness of Ukrainian export-

Source: Compiled by the authors based on the State Statistics Service of Ukraine's data.

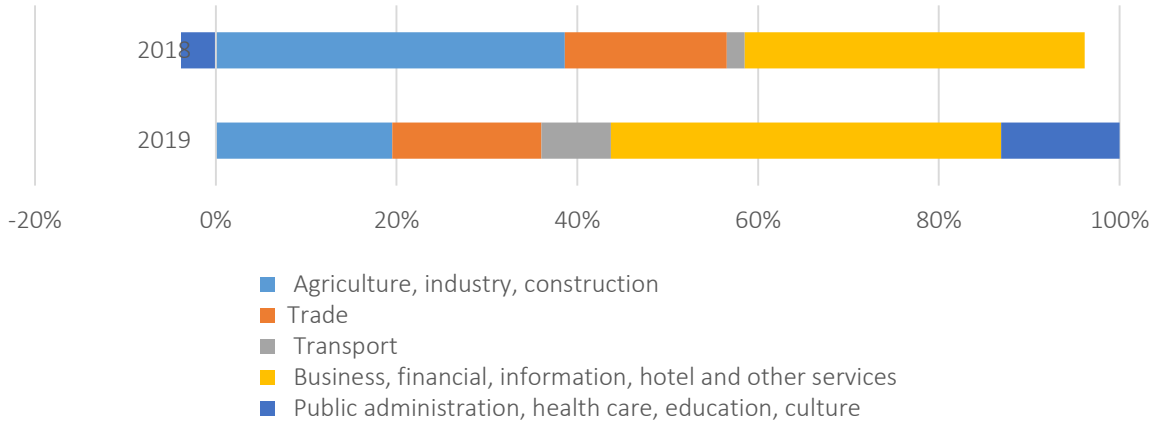

Figure 1. Contribution of particular sectors to GVA growth, %

ers in the world markets. The share of export of goods in GDP tends to decrease for 20 consecutive quarters, and in 2019 it decreased to 30%, which is the lowest indicator in the last 22 years (since 1997) (calculated according to the NBU data).

In the banking sector, however, until recently, there has been an only positive trend in operating results, that is, banks' profits amounted to UAH 60 billion in 2019 (NBU, n.d.), almost tripling compared to the previous year. This trend continued in 2020. The lion's share of banks' profits is derived from investment in internal governmental bonds and NBU deposit certificates, whose real yield has not fallen below 10% p.a. (ex-ante calculation) over the last 1.5 years (calculated according to NBU data, n.d.).

At the beginning of 2020, the fall in economic activity indicators in the real economy intensified: in January and February industrial production decreased by 3.1% (for the fifth consecutive month), turnover of goods by 16%, and wholesale turnover decreased by 2.6%. For two months of the current year, agricultural production increased by only 0.1% (State Statistics Service of Ukraine, n.d.).

Problems in the real economy caused problems in public finance. The increase in tax revenues slowed down. The execution of 2020 budget was significantly behind schedule. Borrowing has become increasingly important in financing the needs of the general government sector (GGS). The state increasingly borrowed funds to finance current budget expenditures. According to the State Treasury Service of Ukraine (n.d.), the share of borrowing in the total amount of funds received by GGS from taxes, social contributions and borrowing has been increasing for five consecutive years and has remained at the 24% level since the end of 2019 (Figure 2).

Source: Compiled by the authors based on the State Treasury Service of Ukraine's data.

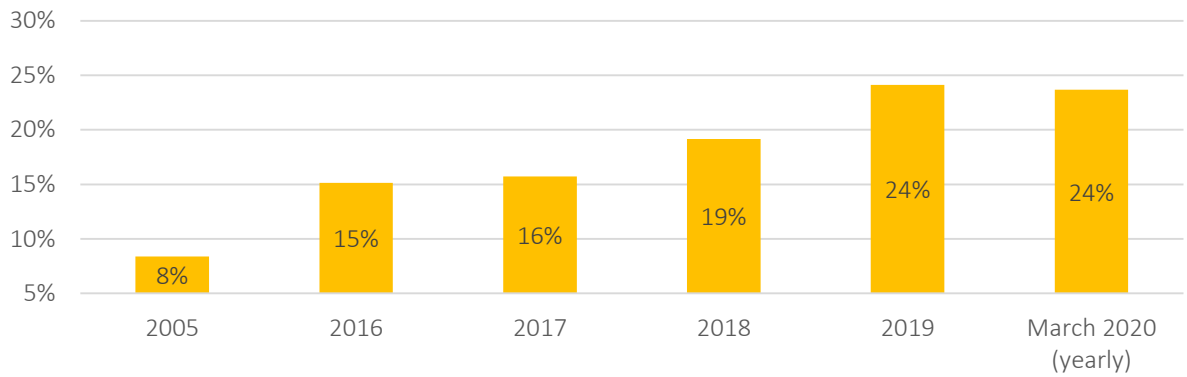

Figure 2. Share of borrowing in the amount of "tax receipts + unified social tax + borrowing", %

http://dx.doi.org/10.21511/bbs.15(2).2020.01

Source: Compiled by authors based on the NBU and the State Statistics of Ukraine data.

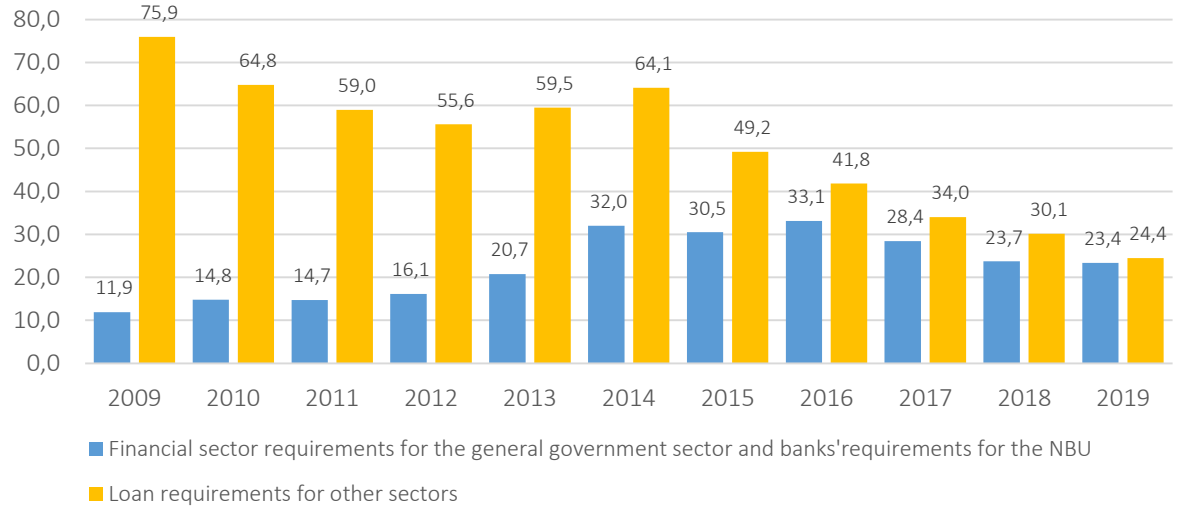

Figure 3. Internal credit and banks' requirements for the NBU and the general government sector, % of GDP

Instead, the banking system has accumulated enormous amounts that do not enter the real economy. To reduce the pressure of the "extra" hryvnia supply, the NBU expanded its deposit certificate transactions three times in the last year – up to UAH 180 billion by the end of February 2020. In the mid-2000s, lending to the economy reached 80% of GDP and decreased to 24% according to 2019 results (Figure 3). If one subtracts non-performing assets from the loan amount, the objective lending to the economy is estimated at less than 15% of GDP. Meanwhile, the relative value of NBU deposit certificates and DGB, that is, passive investment directions, reaches 23% of GDP, thus exceeding the amount of credit provided by deposit-taking corporations to the real economy (calculated according to NBU, n.d.). This situation is explained by the fact that, due to tight monetary conditions, real producers are not able to compete for the financial resources of the financial market and attract them at the rates offered by deposit-taking corporations.

The NBU's exchange rate policy and the policy of forming international reserves are another aspect of economic policy failures. In 2019, speculative demand for hryvnia financial assets from foreign investors was formed, caused by the uncovered parity of interest rates of foreign and domestic capital markets. However, the NBU's reaction to this situation was controversial. Instead of dampening excessive demand by reducing the key rate, the NBU allowed the hryvnia to strengthen to a fundamentally unfounded level. According to the IMF estimates, the real effective exchange rate of the hryvnia has strengthened by 20% for 2019 (IMF, n.d.). As a result, Ukraine's economy has suffered significant losses. The state budget attracted borrowing at rates that exceeded its annual growth rate; exporters suffered losses owing to decline in hryvnia revenues; the real sector received credit resources less than due; and the country underwent the loss of revenues to its foreign exchange reserves, which accounted for 80% of the IMF composite standard (NBU, n.d.). However, the losses of the Ukrainian economic entities were "offset" by the abnormal profits of foreign portfolio investors in government securities.

The current situation in the country's financial system is threatened by large-scale capital outflows, as the country lacks reliable investment facilities. In March 2020, influenced by the triggers of the global crisis, a moderate devaluation of the hryvnia took place, in support of which part of the foreign exchange reserves was spent. The fall of world stock indices against the background of the spread of the coronavirus pandemic and the collapse of oil prices led to a capital outflow from emerging markets and increased devaluation pressure on their national currencies. For the NBU, maintaining macro-financial stability in the country, preventing a sharp devaluation of the hryvnia due to panic moods, and smooth-

ing of currency jumps have become topical problems. Their solution, however, requires a sufficient amount of international reserves.

In the context of using government stimulus measures, special attention should be given to fiscal policy tools. A deficit limit of 2-3% of GDP is not an indispensable rule for public finance, especially in the face of extraordinary shocks. It is important to note that since 2015, the Ukrainian economy was in a state of constant decline in government demand (average primary surplus was + 1.8% of GDP in 2015–2019, including +1.3 in 2019), while other emerging countries actively supported their economies with fiscal stimulus (the average primary public finance deficit in this group amounted to –2.6% of GDP in 2015–2019, including –2.9% of GDP in 2019). It is also worth noting that in times of economic crisis, advanced economies easily increased their fiscal deficits to 5-10% of GDP (IMF, n.d.).

In times of crisis, there is an objective need to increase public spending on social protection. Transfers to low-income households, as well as increased payments of unemployment benefits, can be instrumental in increasing social spending. Targeted support for the low-income groups will positively affect aggregate demand, since these categories of population have a high marginal propensity to consume.

It should be noted that Ukraine's healthcare sector has very low budget financing (3.1% of GDP under the 2020 schedule), which makes it extremely vulnerable to extraordinary challenges, such as the coronavirus epidemic (State Treasury Service of Ukraine, n.d.). Meanwhile, in Eastern European countries, public funding in this area ranges from 4.3% –4.7% of GDP in Poland and Romania, to 7.1% of GDP in Slovakia, and 6.5% in Slovenia (IMF, n.d.). Therefore, solving the problem of building a health care system in Ukraine must become a national strategic project with appropriate functionality and funding.

Increasing budget expenditures on health care will help save lives in the face of widespread poverty and unavailability of paid health care to the general public. New spending areas should include the prevention, detection, control, treatment, containment of the virus and the provision of basic services to quarantined people.

When formulating promising areas of cooperation with international financial organizations, it should be borne in mind that the level of external financial support for Ukraine's investment activity was extremely low throughout the independence period. According to the authors, in comparison with the Polish economy, the level of capitalization of the Ukrainian economy in terms of cumulative accumulation of fixed capital has lagged by USD 600 billion since 1992. This has led to a critical decline in the country's economic capacity and its ability to maintain macroeconomic stability in the face of extreme shocks. When planning and implementing programs of Ukraine's cooperation with official creditors, it is very important to maintain the state sovereignty of Ukraine and not restructure the internal economic policy for the benefit of external players.

In the context of the debt policy problems, special attention should be paid to attracting public funds to internal government bonds in foreign currency, which can become one of the major sources of financing the budget deficit, given the availability of more than USD 80 billion, or about 60% of GDP (NBU, n.d.), in extra-bank circulation. An additional factor in the attractiveness of such DGBs is low public confidence in the banking system and low interest rates offered by banks on foreign currency deposits. As of April 1, 2020, the Government of Ukraine could borrow only UAH 9.4 billion of public funds to finance the fiscal deficit, which was only 0.2% of GDP, or about USD 350 million (NBU, n.d.).

The practice of other countries shows that during financial crises government borrowing from the population becomes one of the channels of financing the government's needs in foreign currency, given the decline in sovereign ratings and limited access to commercial domestic and foreign capital markets. According to Eurostat (n.d.), the amount of borrowing from the households exceeded 10% of GDP in Hungary, Portugal and Malta, and was more than 3% of GDP in Cyprus, Italy, and Ireland at the end of 2018 (Figure 4). Following the

http://dx.doi.org/10.21511/bbs.15(2).2020.01

Source: Compiled by the authors based on Eurostat, NBU and State Statistics of Ukraine.

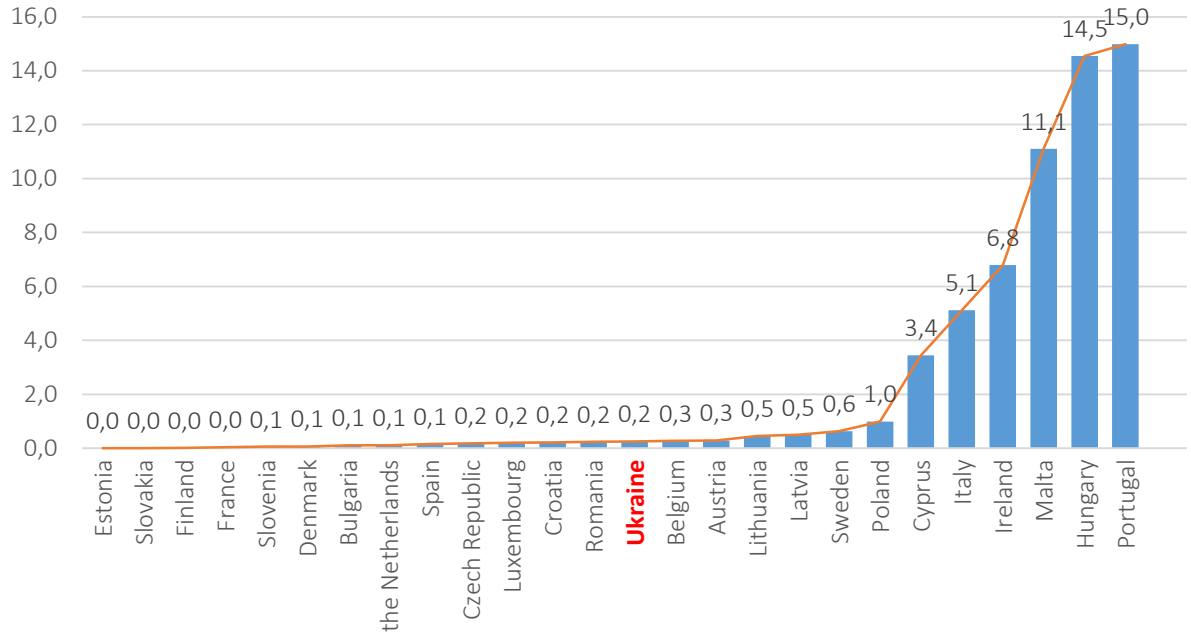

Figure 4. Household deposits in government securities in 2018, % of GDP

recovery of economic growth, the stabilization of public finance, and the improvement of sovereign credit ratings, governments gradually reduce the amount of borrowing from households, favoring commercial borrowing in domestic and foreign markets. This is due to the fact that large commercial borrowings have relatively lower transaction costs of administration for the government; this is also linked to a decrease in public interest in government borrowing, as they tend to yield more modest interest income than deposits, stocks or other commercial securities.

Given the likely outflow of bank deposits and the inflow of foreign currency due to the return of migrant workers to Ukraine as a result of the coronavirus epidemic, it is advisable to expand the instruments of attracting foreign currency to finance budgetary needs. In Ukraine, attracting household foreign currency in government bonds, even at 5% of GDP, can be estimated at more than USD 7 billion. However, the current procedure for selling DGB for the population of Ukraine is burdened by high operational, time and financial costs (associated with the involvement of intermediary services for the purchase of DGBs), which makes such an operation attractive only for large volumes (according to the author estimates, this amounts to more than USD 10 thousand).

CONCLUSION

The current situation in the Ukrainian economy requires vigorous actions both in terms of supporting aggregate demand and supply by monetary and fiscal policies, and a willingness to take tough restrictive measures to counter speculative factors or critical deterioration of the financial stability of individual sectors. The primary task is to preserve the economic potential and social capital and to create on their basis the prerequisites for further economic recovery and progressive socio-economic development of the country.

Generalization of the theoretical bases of crisis management of the economy in the face of extreme shocks, identification of areas of vulnerability and channels for the penetration of external shocks to the national economy allowed the authors to formulate conceptual provisions and practical measures to counter the crisis in the Ukrainian economy.

It has been established that the main areas of taking anti-crisis measures by the Government and the National Bank of Ukraine in current conditions of spreading international contagion effects on the Ukrainian economy are: developing measures to prevent or absorb the shocks of possible destructive processes in the financial market of Ukraine; reviewing and adjusting the priorities of the goals of the executive authorities and the central bank to ensure their harmonization with the goals of economic growth, public employment, etc.; creating an adequate monetary environment for economic entities in times of crisis, National Bank's assistance in strengthening the financial stability of other economic sectors, as well as ensuring the banking sector adaptation to emergency operations; developing measures to preserve the country's economic capacity and revive its industry; providing opportunities for financing real investment projects aimed at improving the competitiveness of the economy and expanding its internal market; development of a Ukraine-IFIs' cooperation strategy with the focus on the implementation of those programs and financial instruments that contribute to the expansion of production capacities of Ukraine and competitive growth of Ukrainian enterprises.

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Validation: Bohdan Danylyshyn.
Visualization: Ivan Bohdan.
Writing – original draft: Bohdan Danylyshyn.
Writing – reviewing & editing: Bohdan Danylyshyn, Ivan Bohdan.

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