BASIC FINANCING PRINCIPLES OF ANTI-COVID MEASURES: THE CASE OF THE BANK FOR INTERNATIONAL SETTLEMENTS

Abstract. The study's main purpose is to study the process of financing anti-COVID measures by the Bank for International Settlements (BIS) during the pandemic COVID-19. Systematization of literature sources and approaches to solving the problem of low level of financial assistance in combating COVID-19, especially for developing economies, showed a need to identify positive and negative factors affecting the BIS during the COVID-19 pandemic. The relevance of solving this scientific problem is a need for priority funding health care to prevent the spread of viral infection COVID-19. The study of anti-COVID measures by BIS during the global pandemic was carried out in the following logical sequence: determining the relevance of the topic; analyzing the scientific background on the research topic; establishing the research methodological basis; providing conclusions and recommendations. Methodological tools of this study are as follows: comparative analysis, scientific abstraction, systematic approach, and generalization method. This study covers the 2019-2020 years. The object of the study was a financial company – the BIS, which can effectively finance anti-COVID measures during the pandemic COVID-19. The article presents an empirical analysis of the possibility to finance anti-COVID measures by the BIS during the pandemic. The findings showed an urgent need to find additional funding sources to finance anti-COVID measures. The study empirically confirms and theoretically proves that the BIS's positive and negative factors are crucial in providing effective anti-COVID measures. The authors determined negative and positive factors influencing the BIS work during the pandemic. Findings allow to find factors for solving management problems regarding the financing of anti-COVID measures. Besides, they contribute to forming directions to optimize the collaboration between countries' financial institutions and the BIS. The study results could be useful for effective management decisions by managing the BIS in financing anti-COVID measures.

Keywords: bank of international settlements, mechanism, pandemic, factor, financing.

Introduction. Forming an effective health care system requires investigating the Bank for International Settlements (BIS), considering its role and place in the international health care system during the COVID-19 pandemic. It could promote financial cooperation between countries to overcome pandemic threats. Besides, for overcoming the global COVID-19 pandemic in cooperation with various financial institutions,
it is essential to provide financial support to the BIS member and countries that need financial resources to combat diseases caused by COVID-19 coronavirus. Thus, the mentioned above are of great relevance under the current global pandemic impact, which negatively affects the world economy.

It is necessary to note that a scientific problem involves the work factors that influence the BIS in force-majeure circumstances, such as world pandemics. Notably, it significantly reduces the economic efficiency of BIS due to the outflow of financial capital and its redistribution in the BIS member countries. Thus, it contributes to the destabilization of the BIS financial condition. It stands to note that in force-majeure circumstances (global pandemics), primarily developing economies become more interested in getting financial assistance. There are several prerequisites of the above mentioned such as failure effective financial instruments of developing economies that require financial resources, primarily due to low GDP of these countries; meagre currency earnings due to export operations; the economic orientation to raw materials, resulting in low output added value; poverty in the country; high levels of corruption schemes and the shadow economy, as a whole.

Therefore, the value of BIS cooperation with the central banks of developing countries is vitally important. Moreover, financial institutions (like the BIS), acting as financial donors, need guarantees from the central banks of countries asking for financial assistance. These instruments could be government bonds, government letters of credit, elements of venture financing (pledge of assets under financial debt obligations, etc.). This research aims to study the BIS financing of anti-COVID measures during the pandemic COVID-19.

**Literature Review.** The scientific background analysis showed the high interest of the researchers in the role of BIS and its place in international settlements and payments under global pandemic.

It stands to note that the formation of effective scientific collaborations between financial institutions and BIS facilitates the financial security growth of both the country and BIS due to the provision of new financial services and programs, including the COVAX program. Notably, the specified above program aims to purchase vaccines against coronavirus COVID-19. In turn, in the study (Ramzi and Salah, 2018), Ramzi T., Salah A. considered the problems and prospects for R&D funding in medicine of middle European countries.

The business profitability, including the financial sector of the national economy, is a significant factor in the financial-capacity building to confront pandemic challenges. The scientists Wignaraja G., Krueger J., Touzon A. (Wignaraja et al., 2016) estimated the profit and financial development of Malaysia and Thailand companies based on the results of the capability index evaluation.

It is worth noting that national financial development, among other things, membership in the BIS, is essential for implementing anti-COVID measures effectively. In the paper (Grevtsev, 2009), Grevtsev A. presented the countries' financial development analysis results based on the Global Industry Competitiveness Index, considering the financial competition impact.

Financial transformations affect the interaction principles between the central banks of the BIS member countries and the BIS. In turn, coordinated work and interaction between all BIS members assist the timeliness of financial support for combatting the COVID-19 by BIS for BIS member countries. Herewith, the scientists Siborowski and Skrobzka (2020) emphasized the role of innovative financial changes in the European Union countries.

On the other hand, building a partnership with the BIS requires establishing formal and informal links. It is a concept of interaction between the central banks of the countries and the BIS that could affect the management decision-making time regarding financing the anti-COVID measures by the BIS. Freitas I., Clausen T., Fontana R., Verspagen B. (Freitas et al., 2011) studied the issues of formal and informal relations of financial companies of Sweden, Norway, the Netherlands and the United Kingdom in the international process.
Cross-cultural cooperation in building effective collaboration with BIS is of particular importance, especially in compliance with all the Ministry of Health's requirements and measures to prevent coronavirus infection. In the study (Özak, 2018), the author analyzed the cross-cultural cooperation between countries, which provides investment capacity growth.

It is essential to note that BIS policy towards aggressor countries could be an effective tool to limit funding for medical programs. In turn, Kuvalin D., Moiseev A., Lavrinenko R. (Kuvalin et al., 2018) studied the impact of global economic sanctions on the work of Russian companies.

Carayannis and Papadopoulos (2011) noted that collaboration between the BIS and its members involves using the stakeholder approaches in the financial process during the global pandemic. Thus, it allows forming effective organizational and economic support for the financing of anti-COVID measures.

In the study Lane and Maxfield (2005), the authors considered the functioning of economic systems in conditions of uncertainty. It could be stated that nowadays, the functioning of financial institutions, central banks of BIS members, and BIS is under the influence of uncertainty and pandemic challenges. Moreover, it affects the world economy.

Assessing the participants' competitiveness in the BIS financial process is important to determine its performance. Besides, the techno-economic paradigm of the country could affect the national health care development during the global pandemic COVID-19. In the paper (Gkypali et al., 2019), Gkypali A., Kounetas K., Tsekouras K. established the technological gaps in the EU economic sectors and analyzed their competitiveness.

It stands to note that government aid is important for the health care sector, especially during the pandemic. The scientists Carlsson B., Eliasson G., and Soo K. (Carlsson, et al., 2018) assessed the cost of government programs focused on subsidizing sectors of the economy in Sweden.

Kazakis and Faggian (2017) assessed the international labour migration capacity in the United States. Thus, it was found that personnel recruitment could involve external labour migration, which affects the staff's level in the BIS and medical staff support in countries that require highly qualified medical staff to overcome the effects of the pandemic.

Assessing the foreign capital potential is important in building long-term relations with BIS and the companies' tax receipts to the revenue from business activities with foreign investment companies, adding foreign capital to medical programs, including those aimed at combating the pandemic COVID-19. Lopez M. assessed these issues in the case of Colombia was (Lopez, 2017).

Moreover, the state of expertise of the country affects the process of formating the country's financial potential with BIS. Thus, it influences the receipt of export revenue from sales and increases the country's financial potential, including in health care under anti-COVID measures. The scientist Bayar (2017) analyzed countries' export opportunities of the industrial complex. Notably, the country's expertise provides analyzing the subjects' marketing potential as an element of the country's external competitiveness, increasing the financial potential. Herewith, in the paper (Taraniuk et al., 2018), the authors assessed the marketing potential of Ukrainian companies for foreign markets.

The method of outsourcing in health care is considered to be effective. It allows transferring a part of work (transportation, hospital maintenance, etc.) to other institutions. On the one hand, outsourcing could minimize the cost of anti-COVID measures, and on the other hand, create privileged price for medical services due to subventions from the government budget. Therefore, Love and Roper (2001) evaluated outsourcing in financial innovation in the UK and Germany. In turn, the researcher Sung (2003) assessed the institutional mechanism of influence on the economy of South Korean industries.

Therefore, the theoretical analysis results showed that countries' financial potential and their financial provision in the BIS and its member activity are important in building long-term relationships with the BIS during the global pandemic. However, the influence of positive and negative factors on the functioning of the BIS and its financing of anti-COVID measures still open. Besides, the scientific community investigated
incompletely the aspects of optimizing the BIS work and increasing its financial capacity during the global pandemic, which allows increasing the funding for anti-COVID measures.

**Methodology and research methods.** Systematization of scientific background showed that many researchers considered the role of international financial institutions and their impact on developed and developing economies during the global pandemic.

In turn, a pool of scientific papers, especially foreign, is devoted to the role and impact of financial world crises and pandemics on the activity of BIS and its members. Thus, the impact of the global pandemic COVID-19 on the BIS and central banks grow in popularity among scientists.

The findings show the vast scientific interest in central banks’ role in the world financial system, especially for developed economies. The scientists studied the central banks as an element of financial development that affect world economic development. It is worth providing the example of establishing the COVAX fund by the international donors to purchase vaccines for further population vaccination in different countries. The scientific hypothesis is that providing effective financial provision for anti-COVID measures by the BIS allows increasing financial assistance to combat COVID-19 in countries with developed and developing economies.

Methodological tools of this study are as follows: 1) comparative analysis to study the literature sources devoted to the BIS activity and the establishing BIS economic indicators during the global pandemic COVID-19; 2) scientific abstraction to form positive and negative factors affecting the BIS functioning and funding anti-COVID measures; 3) systematic approach to set the direction for optimizing the BIS activity during the global pandemic COVID-19; 4) generalization method to sum up the obtained results and provide recommendations for further research directions.

**Results.** This study aims to actualize the BIS financial support role for BIS-member central banks and central banks of developing economies. It stands to mention that the world pandemic causes the growth of financial resources global demand for countries implementing anti-COVID measures. Thus, the BIS could be a financial donor for these countries. In turn, it is relevant to study the main indicators of BIS work during the COVID-19 pandemic (2019-2020), such as BIS deposit programs. Figure 1 shows that the BIS banking department’s formation of the deposit portfolio and financial monitoring has a special place.

![Figure 1. Overall balance and deposits by the BIS financial products, billion SDR](image)

Sources: developed by the authors based on (Annual Report BIS, 2020).
Figure 1 demonstrates that during the global pandemic, the volume of the deposit portfolio did not decrease. Therefore, despite the predictions of experts and analysts of the BIS Financial Stability Institute, there was no outflow of BIS capital did not occur. On the contrary, «Other currency deposits» increased in Q1 2020 while it was a peak of the first wave of the pandemic COVID-19 in the world.

Pandemic challenges prioritized funding anti-COVID measures around the world. Therefore, it is appropriate to examine the negative and positive COVID-19 pandemic impact on the financial performance of financial companies and BIS for 2019-2020. It is worth mentioning that the growing danger of the COVID-19 spread and the need to combat it requires implementing anti-COVID measures worldwide.

Therefore, it is necessary to analyze the anti-COVID measures' funding in poor countries (with developing economies). Notably, the WHO vaccination program against COVID-19 in poor countries (Asia, Africa and Latin America) has faced several problems: lack of funding, logistical risks of vaccine supplies, and a busted deal. The COVAX program by the WHO and the Gavi, the Vaccine Alliance, Pharmaceutical Companies, Charities and International Organisations Organizing Global Vaccination Companies provides for at least 2 billion doses of vaccine to deliver to poor developing countries (Africa, Asia, and Latin America) by the end of 2021. It is worth emphasizing that COVAX vaccination ensure less expensive untested vaccines, instead of Pfizer, BioNTech and Moderna developed with new mRNA technology. Notably, the Pfizer vaccine has been approved for emergency use in several countries. Besides, the first countries that used this vaccine were the United Kingdom and the United States. In the COVAX program framework, the price per vaccine dose is less than 5.20 USD, while Pfizer vaccines cost 18.40-19.50 USD, and Moderna – 25-37 USD. Besides, Pfizer and Moderna vaccines require a special cold storage and transportation regime, while the COVAX program doesn't finance it.

The COVAX program aims to provide 2 billion doses of vaccine by the end of 2021. Almost 5 billion USD (4.2 billion euros) has already been raised for this initiative, including over 500 million euros of Germany's contribution (Venkina, 2020). In this study, it is assumed that the BIS could join the financial support of the COVAX program, providing credit support at low interest rates for governments of developing economies.

Therefore, the countries with developed economies advanced in combating COVID due to the higher level of financial stability and the possibility to purchase more expensive vaccines for their populations. It is also appropriate to consider the impact of the global pandemic on the world economies and the mechanisms to overcome the financial crisis. Notably, the International Monetary Fund (IMF) has announced extraordinary credit of more than 100 billion USD and 1 trillion USD to mobilize its members (OECD, 2020).

Therefore, it is essential to provide a balanced world policy regarding anti-COVID measures aimed at supporting the economy of countries (including tax break, government assistance to small businesses, social assistance for vulnerable groups, investment support to establish an anti-COVID system, charity, financial donations and low-interest lending by BIS for developing economies). That requires a comprehensive strategy to satisfy all population needs regarding physical, mental and social health, directly or indirectly affected by COVID-19.

Besides, it is appropriate to determine factors influencing the functioning of BIS in the current pandemic threats, including negative ones:

− limited financial resources from developing economies and the inability to purchase more expensive vaccines;
− slowing down lending processes in the banking system due to reduced solvency of borrowers;
− financial risks growth in developing countries regarding paying credit on the purchase of the vaccine;
− an increase in the bank rate in the national central banks causing the lending rate growth of commercial banks and the threat of contraction in credit borrowing.
On the other hand, the positive factors influencing the BIS functioning are as follows:

- change in the central banks' policy regarding the provision of soft loans at low-interest rates to finance anti-COVID measures;
- creating a system for preventing financial risks for the central banks of the BIS member countries through establishing the financial reserve funds;
- providing financial guarantees by governments to the repayment of credit for anti-COVID measures, including issuing government liabilities and earmarking funds under government guarantee;
- a large percentage of central banks in developed BIS member countries have sufficient financial potential to finance the population's vaccination.

The scientific novelty of this study includes the development of factor analysis methods, which, in contrast to existing ones, contain positive and negative factors influencing the functioning of BIS under global pandemic challenges. In turn, it allows forming a system of financial support for anti-COVID measures.

Table 1 provides the basic directions to optimize the BIS work with developing country (Ukraine) based on the formed positive and negative action factors. In turn, it would increase the financial provision of anti-COVID measures by BIS to the given country.

| Optimization technique | Characteristic |
|------------------------|----------------|
| Developing effective governmental and international financial affiliate programs for medical entities | Contribution to the international cooperation intensification between Ukraine and the BIS in establishing financial affiliate programs for lending to medical entities to purchase necessary medical equipment. |
| Using the intelligent potential of financial institutions employees in joint medical projects with BIS | Creating science-intensive financial cooperation programs between financial institutions and BIS under the focus on financing the medical sector. |

Sources: developed by the authors.

Therefore, the formed above optimization techniques should be the principal in the BIS financing of anti-COVID measures in developed and developing countries.

Conclusions. This study provides the results on the analysis of the BIS work during the global pandemic COVID-19 by the deposit programs. There were determined negative and positive factors influencing the BIS work during the pandemic. The findings allowed assuming that these factors will solve management problems regarding the financing of anti-COVID measures in developed and developing economies. Besides, it allows establishing BIS’s financial potential and its members in the stability/instability zone under global pandemic. The study provides ways to optimize the interaction between financial institutions of Ukraine and the BIS during the pandemic. It is noted that these ways aimed to develop both effective measures to improve the internal financial environment and externality measures, which include collaboration with the BIS in terms of potential financial assistance for anti-COVID measures.

Therefore, it is appropriate to further this research under investigating the effective organizational and economic support for financing the anti-COVID measures by the BIS, especially for countries suffering from the global pandemic and needed financial resources.

Author Contributions: conceptualization, L. T. and I. D.; methodology, L. T. and H. Q.; validation, L. T., I. D. and K. T.; formal analysis, K. T.; investigation, H. Q.; resources, I. D.; data curation, H. Q.; writing-original draft preparation, K. T.; writing-review and editing, L. T; visualization, K. T.; supervision, I. D.; project administration, L. T.; funding acquisition, I. D.
Funding: This research was funded by a grant from the National Research Foundation of Ukraine №0120U104765.

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This research was funded by a grant from the National Research Foundation of Ukraine №0120U104765.

Health Economics and Management Review, 2020, Issue 2

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в період пандемії COVID-19, зокрема, фінансування противоковідних заходів. Актуальність розв'язання наукової проблеми полягає в тому, що в період пандемії виникає необхідність в першочерговому фінансуванні медичної допомоги на запобігання розповсюдженю вірусної інфекції COVID-19. При цьому таким джерелом фінансування може бути банк міжнародних розрахунків. Дослідження питань фінансування противоковідних заходів банком міжнародних розрахунків в період пандемії COVID-19 здійснено у наступній логічній послідовності: визначено актуальність тематики; досліджено літературні джерела з означеної теми дослідження; встановлено методологічне підґрунтя наукового дослідження; проведено практичну реалізацію дослідження; розроблено наукову новизну дослідження; сформовано висновки та рекомендації. Методичним інструментарієм проведенного дослідження стали методи порівняльного аналізу, наукової абстракції, системний метод, метод узагальнень. Періодом дослідження обрано 2019-2020 роки. Об’єктом дослідження є банк міжнародних розрахунків, оскільки ця установа може забезпечити ефективне фінансове забезпечення противоковідних заходів в період пандемії COVID-19. Результати емпіричного аналізу свідчать про існування вагомої потреби у пошуку додаткових джерел фінансування на противоковідні заходи. Дослідження емпірично підтверджує теоретично доведено, що сформовані позитивні та негативні фактори дії на функціонування банку міжнародних розрахунків мають вирішальні місця для забезпечення ефективного процесу фінансування противоковідних заходів та формування напрямів оптимізації роботи фінансових інституцій країн з банком міжнародних розрахунків. Результати проведеного дослідження можуть бути корисними для прийняття дій у управлінських рішеннях керівництва банку міжнародних розрахунків, щодо фінансування програми противоковідних заходів в період пандемії COVID-19.

Ключові слова: банк міжнародних розрахунків, механізм, пандемія, фактор, фінансування.

Manuscript received: 12.10.2020
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