Financial security during a pandemic SARS-CoV-2 Coronavirus pandemic in Poland

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Abstract
The year 2020 was sure dominated by the pandemic caused by the new SARS-CoV-2 coronavirus. Many effects of the COVID-19 pandemic appeared in the Polish economic reality, including those related to financial security. In connection with these changes, many important questions have arisen, among others: will the financial systems of Poland be stable during the evolving crisis situations, intensively changing social and economic conditions, and will the people participating in these systems be safe from a macro-and microeconomic perspective? In the face of the situation, are the safety net institutions prepared to fight the economic crisis? The aim of the article is to analyse and evaluate the Polish financial system during the pandemic. Efforts were made to indicate the impact of the negative consequences of the COVID-19 pandemic on the country's financial security.

The pandemic affects the country’s economy in two ways, it has stalled many manufacturing industries and there has been a gap in the supply of products to the domestic market. All sectors of the economy experience disruptions leading to a shortage of good and the resulting higher prices thereof. Limited economic activity also generates lower tax revenues. Because it is precisely when the government increases spending, it results in larger fiscal deficits and greater public debt.

The article focuses on discussing the potential effects of the COVID-19 pandemic on the stability of the financial system in Poland.

Keywords: financial security; pandemic; financial system, threat.

Introduction
Considerations on financial security should start from presenting the essence of the issue and the area where it belongs. The financial security of a state, and security itself, are questions that cannot be defined in a single unequivocal way. According to the researchers dealing with the discussed issue, state security should be considered in two aspects. The first refers to the threat to the values protected by the state. It is a goal-setting approach. The second approach indicates countermeasures allowing to limit or reduce the threats and their negative impacts. In this category, the endeavour to a given state is highlighted due to the implementation of appropriate activities (Puacz-Olszewska, 2020).

The concept of security generally refers to the lack of threat or protection against threats (Puacz-Olszewska et, al 2018).

From this point of view, financial security refers to goods or their lack, significant from the perspective of ensuring economic-financial security (Didenko et al., 2020). Having financial resources that are sufficient to fulfil the key function of the state is the most valuable good for satisfying the needs of the financial aspect of economic security (Puacz-Olszewska, et al, 2018).
Financial security is a multidimensional concept as it refers to financial institutions and transactions, financial market segments, as well as individual clients and institutional financial markets (Capiga et al., 2010). In the activities of banks, financial security refers to ensuring the balance sheet adequacy of banks, i.e., maintaining own proper funds and adherence to appropriate relationships in the structure of assets and liabilities (Marcinkowska et al., 2014).

In general, financial security means the absence of threats in the space of enterprise finances, public finances, personal finances from households, banking, and insurance (Jajuga, 2007). The level of this type of security strictly depends on the liberalization of global financial markets, which do not take into account state borders and create the possibility of creating and flowing cash, usually without their physical movement (Bartkowiak and Ostaszewski, 2011).

Financial security in relation to a unit depends on its behaviour. The research of J.S. Hacker (2011) indicates that the vast majority of society aims at the current level of income, rather than its growth. Therefore, lower-income households may have a higher level of economic security, with a lower level of financial security, compared to the middle class or class with a higher financial status - where a significant reduction or loss of income in relation to currently achieved may be related to crisis or destabilization (Borell, 2020).

The security of the financial system is influenced by many negative and positive factors. The factors having a positive impact understood as financial stability usually include the so-called financial safety network covering supervisory institutions, market discipline, security systems, financial market customer protection, and external audit and control systems (Alińska, 2012).

In practice, security can be considered as a set of interconnected subsystems illustrating the functioning of individual elements: economic, social, investment, environmental or financial policy. These elements make the structure of national security (Skrypko, 2014).

One of the most significant factors for the proper functioning of an entity is broadly understood security. However, the analyses prepared on the type and level of safety, and the forecasts made on their basis, are not always consistent with the actual state. An example of such a situation may be the threat resulting from the coronavirus pandemic. Most countries have focused on checking various types of security threats caused by this phenomenon. The problem of further research on this issue is exceptionally important due to the spread of the coronavirus and its negative impact on virtually all areas of life (Bryant, 1998).

An extremely important area of life, but above all the economy of a given country, is financial security. Therefore, the author decided to conduct preliminary research on financial security in Poland during the coronavirus pandemic. Therefore, the aim of the article is to analyze and evaluate the financial system Polish during the pandemic. Efforts were made to indicate the impact of the negative consequences of the COVID-19 pandemic on the financial security of the country. In order to achieve the aim of the work, the following research questions were asked: in times of developing crisis situations, intensively changing social and economic conditions, will financial systems Polish be stable, and are people participating in these systems safe from a macro- and microeconomic perspective? And in the face of this situation, are the institutions responsible for security prepared to fight the economic crisis? The article focuses on discussing the potential effects of the COVID-19 pandemic on the stability of the financial system in Poland (Grzeszczak et al, 2020).

**Material and methods**

To achieve the goal of the work, a research method in the form of analysis was used. The term "analysis" is used frequently in scientific research, studies, publications, and everyday speech. Thus, it is significantly important to pay attention to the aspect, to which the word is
applied. It is necessary to distinguish between an analysis method and the activities of the analysis. Analytical activities may be of the following nature, in particular (Stachak, 1997):

- physical, which consists in dividing physical objects into parts,
- mental, which in turn consists in listing objects as well as the relations and qualities that they are entitled to.

On the other hand, the method of analysis determines a coherent group of research activities, where the key role is played by activities of an analytical nature. The method of analysis consists of dividing a specific activity into parts and then examining each part separately. The purpose of carrying out this process is (Nowak, 1996):

- getting to know the essence of the operation of the examined whole, as well as the changes that occur in it, and getting to know the factors influencing the whole and its parts,
- searching for the structure of the examined whole and the dependencies that exist between parts of a structural nature, as well as between each part and the whole.

Apanowicz (2003) believes that when solving a specific scientific problem by means of analysis, it is necessary to endeavour to separate it on as many structures (parts, facts, assumptions, phenomena) as it is necessary, permissible and possible, to enable the determination of relationships and cause-effect essence or properties of the problem under study. In general, the analysis is made from some point of view that makes it unique. For example, it focuses only on one or several issues of the processes or events being examined, while others are not taken into account in a special way. Accordingly, there is a process of isolating the factors in question from a whole that is more complex. In some analyses, specific elements or parts of the structure are deliberately isolated in order to eliminate their influence on the entire studied phenomenon. This specific part of the structure throughout the entire study is not further taken into consideration. It allows the researcher to determine how a certain phenomenon or system works after the elimination of a given factor. The analysis in question is very precise and allows for a thorough examination.

One type of analysis is economic analysis. According to (Stachak, 1997), economic analysis is a method of scientific research, that divides the whole through logical abstraction. The method uses various types of research methods, but the key role here is played by the activities of mental analysis. This is done by dividing issues into detailed questions and listing the elementary components and their groups from a whole that are examined to discover their relationships and functional properties between them.

The first part of the article discusses in a concise manner issues related to security and, above all, financial security. The financial system of the country is also described. Source material on financial security during the COVID-19 pandemic has been reviewed. Next, the research methods used in the article are discussed. The next stage consisted in the results of analyses based on the Report of the National Bank of Poland. Discussion and summary are the last steps of the work. The analysis carried out in this article is based on publicly available data. These data came from the Report of the National Bank of Poland on the effects of the COVID-19 pandemic.

In the analysis of the obtained results, methods of data interpretation were used, in particular the descriptive and graphic method (tables and graphs).

Financial security analysis. The COVID-19 pandemic has caused huge economic changes around the world, as almost every country in the world has implemented various lockdowns, stay-at-home orders, social quarantine, travel restrictions, as well as temporary closures of businesses. Everything happened in accordance with the recommendations of the World Health Organization. All this has caused many economies of the world to shut down completely. In many cases, redundancies were made, and this consequently contributed to a
decrease in consumption. Wages and jobs have become unstable. A slow destabilization of the financial system and an imbalance in the economy began. There was a huge uncertainty among the public, which began to affect the imbalance of the market in the supply and demand channels. In terms of financial stability, strong declines in financial asset prices and an increase in risk aversion began to (Marlina and Danica, 2009).

The condition of the Polish financial system just before and at the beginning of the COVID-19 pandemic was at a good level and was not characterized by significant financial and macroeconomic imbalances. As a result, the analysed system as a whole is resistant to pandemic shock. However, some credit institutions were previously characterized by higher risk and weaker capital endowment, and in the current pandemic conditions, their corrective actions are additionally hampered. The pandemic has increased credit risk and changed the nature of that risk throughout the financial system. In particular, the probability of too much lending in given market segments (housing and consumer loans) decreased, and in this place, there was a risk of too much limitation of access to credit and its negative impact on the actual sphere of the economy. There were also new risks resulting from the nature and strength of the current shock (Financial Stability Report, 2020).

Figure 1 presents changes in the assessment of weaknesses in the financial system. It shows that the COVID-19 pandemic in the Polish financial system resulted in:

- the increased importance of links between the government and banking sectors as a result of a larger share of the banking sector in treasury bonds and bonds guaranteed by the Treasury,
- the risk related to housing loans has changed its nature, and due to the size of this portfolio, it may significantly affect the condition of banks,
- risk related to consumer loans may be a significant source of banks' credit losses - in a pandemic, this applies to the entire loan portfolio because of its size, the effects of the current situation on the household sector, as well as a strong response of these loans to shocks caused by unforeseen situations,
- loans to enterprises have not been a source of systemic risk recently, but now their importance is growing - the effect of this is the assumed credit losses of the existing banking sector portfolio and the possible impact of limited access to new loans for entrepreneurs and the limited ability of enterprises to repay liabilities,
- another challenge for the financial system may be that banks' profitability continues to decline - the pandemic has an additional negative impact on all types of banking income. In the event of a longer and stronger slowdown, the banks' ability to raise capital will be reduced. It is dangerous especially for the "Skok" sector and cooperative banks, which are characterized by lower efficiency,
- cyber risk challenge resulting from remote work. It is extremely dangerous for financial institutions, due to the significant role of public trust, as well as high dependence on confidential information. At the same time, the current situation causes an increase in remote channels for access to the provision of financial services, and their correct operation becomes significant for maintaining customer confidence in financial institutions. In this aspect, an important task is played by the guidelines of the Polish Financial Supervision Authority, especially those relating to the requirements for the video verification process of banking clients,
- the source of threats is mainly due to credit risk in banks - the COVID-19 pandemic is facing a significant deterioration in the financial situation of households and enterprises, which gives rise to justified concerns about the problem with debt service in most types of loans,
- reduced profitability of banks, combined with higher credit risk, increases the risk of excessive limitation of loan availability. Due to the nature and scale of the coronavirus
pandemic, there is a risk of insufficient credit availability (Financial Stability Report, 2020).

Figure 1. Changes in the assessment of weaknesses in the financial system

Source: Financial Stability Report, 2020.

Figure 2 presents a stylized mechanism of the impact of the current crisis on the financial sector. There was a macroeconomic shock across the economy. In enterprises and households, debt sustainability has decreased, and credit risk has increased. As a result, the demand for loans and financial services decreased. Banks and credit institutions have experienced an increase in credit risk, and as businesses and households have reduced demand for credit, financial institutions have reduced the supply of credit, resulting in a reduction in profitability. There was a risk of insolvency of debtors. A significant outflow of investors was also observed, which put the investment fund market in a bad situation. There was an increasing risk of financial liquidity, as well as the risk of increasing the possibility of withdrawing funds. Negative effects of the pandemic in the insurance sector have also been observed. Revenues from premiums began to fall, and this resulted in lower profitability of insurance companies (Rotembery et al 1991). The consequence of this was an increased risk of insolvency. The provision of insurance services has decreased. All these factors have increased uncertainty in the state’s financial system. However, in order to prevent this, the public authorities intervened, which resulted in an increase in public debt.
In response to the current situation, international institutions, central banks, and governments have taken immediate measures to limit the negative consequences of the pandemic. They cover all areas of economic policy. Table 1 presents economic policy measures in response to the COVID-19 pandemic aimed to maintain financial stability. Fiscal, monetary and economic policies have taken measures to reduce the financial burden on the private sector in order to reduce credit risk. By shaping the right monetary policy, the liquidity of financial markets has been ensured, as well as the liquidity of the banking sector. In turn, macro and micro-prudential measures contributed to maintaining the financing of the economy (Svitlana, and Shichao, 2021).
Table 1. Economic policy actions in response to the coronavirus pandemic and the maintenance of financial stability

| Objective                                      | Fiscal policy | Monetary policy | Micro-prudential supervision | Macro-prudential supervision |
|------------------------------------------------|---------------|-----------------|-----------------------------|------------------------------|
| Reducing the financial burden on the private sector in order to reduce credit risk | x             | x               | x                           | x                           |
| Maintaining the financing of the economy       | x             | x               | x                           | x                           |
| Ensuring liquidity for the private sector      | x             | x               |                             |                              |
| Ensuring the liquidity of financial markets    |                             | x               |                             |                              |

Source: Financial Stability Report, 2020.

The European Union has joined the aid efforts contributing to mitigating the effects of the pandemic. Member states have agreed on the next EU budget for 2021-2027. The agreement reached assumes that the EU can borrow a total of EUR 750 billion in capital markets as part of the "Next Generation EU" package, leading to joint debt. The funds are intended to support the countries and economies most affected by the pandemic. The funds are to be repaid over a long period of time with EU funds, which is an important step forward in European integration and is a visible signal that "we now feel sufficiently interdependent and united enough to make commitments together for the coming decades" (Borrell 2020).

The Monetary Policy Council started tightening the monetary policy in October, raising the main NBP rate from a record low of 0.1% down 5%.

Figure 3. An Increase in interest rates in Poland
Source: Own research based on https://www.money.pl/

Figure 4. Inflation in Poland from 2019 to 2022
Source: Own research based on bankier.pl

Inflation in Poland has been the highest in over 20 years since 2019, and this is not the end of the increase in interest rates in Poland.

Results and discussion

The analysis of the Report of the National Bank of Poland allows for the drawing of the following conclusions that provide answers to the potential effects of the COVID-19 pandemic
on the stability of the financial system in Poland. It was concluded that:

- The shock caused by the COVID-19 pandemic has different effects and courses on the functioning and stability of the financial system and depends on the period over which it is considered,
- In a short time, the intense increase in uncertainty related to the pandemic led to a sudden decrease in the liquidity of financial markets as well as step changes in the prices of numerous assets,
- In the medium term, the increase in risk aversion meant that maintaining the financing of the economy became an important issue,
- In the long run, the risk may be based on the level of public debt that is higher than before,
- The demand of households and companies for financial services has decreased - it leads to a decline in the income of the financial sector,
- The debt-servicing capacity of households and enterprises has decreased - it leads to losses on existing loans and increased risk when granting new loans.

The valuation of instruments on financial markets has fallen - the value of assets on the balance sheet of financial institutions has fallen, and thus losses have been generated.

Conclusions

The priority in the observed covid situation is to maintain lending to the economy while maintaining the resilience and security of the financial system. Actions limiting systemic risk in the financial aspect are supported by entities of the financial sector such as: banks, investment fund companies, and the insurance company.

The role of banks is to develop solutions that facilitate debt service for institutions that have been affected by the pandemic, such as e.g. a loan vacation or debt restructuring. This action would reduce the risk related to the bankruptcy of non-financial entities, and thus the credit losses would not escalate. The role of banks is to cooperate with audit firms to develop a harmonized approach to reporting credit losses. By reducing the uncertainty related to the size of bank loan write-offs, the financial stability of banks and their willingness to create loans will increase. The role of banks is also to maintain an individual risk assessment and avoid automatic action in translating the rating of the situation of given industries into the rating of the credit situation of people who work in them and the enterprises that operate in them. As a result, the risk of reducing the supply of credit too much will decrease.

The role of insurance companies, credit institutions, and investment fund companies is to allocate all the profits earned in previous years to increase the capital base. Thanks to additional own funds, it will be possible to absorb the expected losses from the pandemic, and thanks to the surplus of capital, it will be possible to sustain credit actions and not disrupt the provision of financial services.

The role of the investment fund companies is to take measures to reduce the liquidity risk in the open-end investment funds managed by these institutions. Institutions should maintain liquidity buffers higher, as well as use additional liquidity management tools.

The pandemic had a large impact on inflation in Poland, and the consequence of this was the interest rate increases introduced by banks in the country.

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