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Financing SMEs Through Guarantee Instruments During and After the COVID Crisis, Following the Example of the Republic of Bulgaria

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Abstract: *The paper presents an evaluation of the measures to support SMEs as well as the characteristics of the standard guarantee instruments and those that are modified and specially created in connection with overcoming the Pandemic COVID - 19 with derived theory and obtained empirical results. In order to prevent a large part of the real economy from becoming insolvent, most European countries have taken measures to support companies to help their immediate liquidity needs. The measures included: temporary deferment or remission of taxes; moratorium and restructuring of loans with postponement of repayments or extension of terms; guarantees to facilitate obtaining new loans on favourable terms; covering part of the salaries and other operating expenses; direct aid for businesses with imposed restrictions, etc. The measures and guarantee instruments showed different effectiveness, with the greatest positive effect on liquidity being those supporting employment and current expenses, followed by the measures related to debt service and use of new loans, and the least impact showing postponements of taxes.*

1. INTRODUCTION

The history of state-supported guarantee funds after World War II in Europe, especially in the Netherlands and Germany, does reflect their important role in the development of the economy. Especially for the small and medium-sized enterprises (SMEs) sector, these schemes have been essential, providing them with additional support to finance and stimulate economic growth. The fact that many of these guarantee schemes continue to operate today in most European countries testifies to their importance and successful operation in the long term. In the 1990s, after the collapse of the former Soviet Union and the transition to a market economy in Eastern European countries, interest in credit guarantee funds was revived. These funds have proven to be significantly useful and successful in helping small and medium-sized enterprises (SMEs) to access finance in the context of economic transformation and transition.

Table 1. Historical overview of guarantee fund models

Period of creation	Main focus	Main characteristics of the guarantee fund
Europe 19th century	Mutual assistance between small entrepreneurs	Mutual associations to guarantee
Europe and North America 1950-1960	Recovery of the SME sector	State-supported national schemes
Developing countries 1980-1990	SME and agricultural sector development	State-supported or program-based
Oikonomics in transience	Reconstruction and reactivation of the SME sector	State-supported or program-based

Source: Own research based on Deelen and Molenaar (2004)

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Many of these guarantee funds have been successful in helping to boost economic growth and helping SMEs grow their businesses. They have played a key role in creating better financing and support conditions for entrepreneurs in these countries who are struggling to adapt to the new economic realities following the changes in the system. With the main objective of supporting and facilitating businesses' access to finance.

2. MODIFICATION OF WARRANTY INSTRUMENTS IN R. BULGARIA

With a decision of the European Commission, the European Fund for Strategic Investments (EFSI) unblocked €1 billion, which served as a guarantee for the European Investment Fund. This allowed the EIF to provide special guarantees to banks and other lenders to encourage the provision of liquidity to more than 100,000 European SMEs and mid-caps.

The provision of guarantees by the European Investment Fund (EIF), supported by the European Fund for Strategic Investments (EFSI), was an important step towards providing liquidity and stimulating financing for these SMEs and mid-caps. Such guarantees helped banks and other lenders to overcome risk fears and provide more flexible financial conditions to affected undertakings, as well as to contribute to the creation of more favorable environment for financing and support the resilience of businesses in times of crisis. In the paper, the authors analyze two main instruments: **Loss Ceiling Guarantee provided by the European Investment Fund – COSME Direct Guarantee** and **InnovFin Risk-Sharing Guarantee.**

In Table 2, we can see that the changes to the COSME programme can be traced as follows. The COSME - Covid programme proposes a higher percentage of the working capital guarantee up to a certain amount and a higher loss ceiling to address the specific economic challenges faced by SMEs as a result of the pandemic.

Table 2. The change in the standard criteria of UniCredit Bulbank's programme (COSME)

	COSME (Competitiveness of Enterprises and Small and Medium-sized Enterprises)	**COSME-Covid***
Amount of the guarantee in euro	105,000,000	305,000,000
Loan amount in EUR	3,000,000	3,000,000
Warranty period	Investment loans – 10 years Working capital loans – up to 5 years	Investment loans 10 years Working capital loans – up to 9 years
Types of loans	Investment Loans Working Capital Loans	Investment Loans Working Capital Loans
Guarantee percentage	50%	80% (for working capital up to EUR 150,000)
Loss Ceiling Percentage	6.5%	12%
Term for granting loans	31.12.2022	31.12.2021

Source: Own research

Horizon 2020 is one of the EU's flagship scientific initiatives, focusing on research and innovation in the 2014-2020 programming period, with a total budget of € 77 billion, supporting a wide range of projects and initiatives. Horizon 2020 includes financial instruments providing support to innovative businesses, one of which is the guarantee instrument - **InnovFin SME Guarantee Facility** – risk-sharing guarantee. EU Funding for Innovators, which aims to facilitate access to finance for innovative companies across Europe. It includes the SME Guarantee Facility (SMEG), which provides guarantees and counter-guarantees for debt financing between €25,000 and €7.5 million. This helps to improve financial access for SMEs and mid-caps, who develop innovative projects.

As with the modified COSME program, InnovFin also fell within the scope of improving lending conditions for a certain time during the Pandemic.

InnovFin-COVID* is an adaptation of InnovFin's existing financial instrument in order to respond to the specific challenges faced by companies during the COVID-19 pandemic. It offers a larger portfolio, a longer term for working capital loans and a higher guarantee rate, which is designed to support innovative companies in this critical period.

Table 3. The change in the standard criteria of UniCredit Bulbank's programme (InnovFin):

	InnovFin	**InnovFin- COVID***
Portfolio size in euro	15,000,000	93,000,000
Loan amount in EUR	7,500,000	7,500,000
Warranty period	Investment loans – 10 years Working capital loans – up to 3 years	Investment loans 10 years Working capital loans – up to 7 years
Eligibility criteria	The company or the loan must meet at least one of the criteria for innovation (European Investment Fund, 2020, p. 16)	The company or loan must meet at least one of the criteria for innovation
Types of loans	Investment Loans Working Capital Loans	Investment Loans Working Capital Loans
Guarantee percentage	50%	80%
Warranty fee	0.5%-0.8%	0.5%-0.8%
Loss Ceiling Percentage	n/a	n/a
Term for granting loans	18.12.2022	31.12.2021

Source: Own processing

3. WARRANTY INSTRUMENTS IN BULGARIA

Guarantee instruments are an important aspect of banks' lending policy, as they allow banks to expand their loan portfolio while reducing their credit risk. Through the guarantee instruments, banks supplement the collateral of loans, which allows borrowers to receive financing on more favorable terms, while the bank maintains a certain level of security. Now we will look at the guarantee instruments that are active in Bulgaria during the Covid-19 pandemic.

Table 4. Guarantee schemes in force during Covid-19

Warranty Issuer	**Warranty scheme**	**Maximum guarantee percentage**	**Maximum amount of the guarantee in BGN**	**Status**
EIF	**SME Initiative**	60%	8 800 000	**Adventure**
EIF	**COSME**	50%	3 000 000	**Adventure**
EIF	**InnovFin**	50%	1 500 000	**Adventure**
EIF	**DFF**	80%	750 000	**Acting**
NGF	**NGF 2020**	50%	1 000 000	**Adventure**
NGF	**NGF 2022**	50%	1 000 000	**Acting**
EIF	**EGF Uncapped**	70%	10 268 000	**Adventure**

Source: Own research based on a report by the European Court of Auditors (2020)

The guarantee rate that institutions cover varies and is usually set in percentage rates between 50% and 80%, depending on the specific terms of the loan agreement and the risk associated with the transaction or borrowers. The number of guarantees on the Bulgarian market, which are usually offered by credit institutions, can reach a certain maximum value, and as standard, for local guarantors, it reaches BGN 3 million. At the European level, the maximum amount of the guarantee depends on the historical data that each bank has provided when applying for the management of an instrument.

The advantages and disadvantages of using guarantee schemes to secure a credit transaction.

The advantages are:
- **Non-depreciable amount of the guarantee**: Compared to the assets used as collateral for a loan, the guarantee usually does not lose value over time. This is beneficial for the bank as it does not need constant revaluation or evaluation of the value of the guarantee.
- **Reducing the risk of default**: The guarantee scheme provides additional security to the bank by reducing the risk of loss if the borrower does not repay the loan.

The disadvantages of warranty schemes include:
- **They do not reduce the final loss, but only redistribute it:** Although guarantees provide additional security to the bank, they do not reduce the actual loss in the event of a borrower‘s default. They simply transfer some of this risk to the guarantee participants.
- **Higher cost for banks when guaranteeing unsecured exposure**: Banks often pay fees or premiums for guarantee services. In particular, when guaranteeing exposures that would otherwise be unsecured, the fees may be higher, which increases the bank‘s operating costs.

Compared to the 2008 crisis and subsequent financial problems, where problems in the financial sector were central, the recession in 2020 is rooted in the external factor - the pandemic. Border closures, travel restrictions and social distancing measures have had major and immediate economic consequences. The disruption of international trade and the disruption of global value chains have also contributed to economic instability.

The pandemic has indeed had a serious and adverse effect on the Eurozone economy. There have been significant declines in various areas of economic activity, especially in the services sector, where the reduction in demand and restrictions on activity have had serious consequences. This led to an extremely rapid decline in GDP in real terms in the second quarter of 2020. Central banks and authorities acted decisively to address these challenges and measures were taken to create favourable financing conditions.

As a result of the pandemic and the restrictive measures introduced, Bulgaria also entered an economic recession. The emergency epidemiological situation in the country, imposed in 2020 and 2021 as a result of the COVID-19 pandemic, led to a contraction of the economy, restriction of the activities of many small and medium-sized enterprises and an increase in the number of unemployed people. To address the economic consequences of the pandemic, the government initiated a package of anti-crisis measures aimed at assisting Bulgarian enterprises in accelerating the process of dealing with the negative impact on their activities. The policies and measures included both entirely national funding and funding with EU funds and national co-financing. Measures to support small and medium-sized enterprises included:
- Wage subsidy scheme „60/40“.
- Support for enterprises operating in the tourism, restaurant, hotel and transport sectors.
- Provision of operating capital for medium-sized enterprises.
- Support to SMEs operating bus and coach services.

The theory of change in SME financing programs shows how SME financing programs are expected to work. Initially, external funds are provided by these programs, and then these funds are converted into assets. In this sense, an improvement in the performance of the firm is expected, which in turn leads to an increase in financial opportunities as a cycle (Kersten et al., 2017).

Life-cycle theory in SMEs suggests that younger and smaller firms tend to rely more on debt financing for information-based reasons. Loan guarantee schemes are being used again to offer credit support to smaller firms during the health pandemic, according to (Cowling et al., 2022). The increased risk to the liquidity of enterprises is caused by the so-called. „dash for cash", in which they began to look for significant cash in a short time. Various forms of credit were a source of additional liquidity. First of all, companies turned to banks to use open credit lines, overdrafts and other forms of loan financing (sources of financing). A study for the United States shows that in the period from March 11 to April 1, 2020 (the period of the pandemic), bank loans to companies increased by 482 billion euros. Dollars. During these three weeks, the growth of bank credit to firms increased by an average of 6% per week, which is 50 times higher than the average for the last 45 years and has no analogue for this period, the value of more than 302 billion dollars, which makes an average weekly value of 33.6 billion, according to research by (Li et al., 2020). For comparison, the average weekly emissions for the period from the beginning of the year before the crisis were only about 5 billion dollars, i.e. the demand for bond financing from firms increased more than 6 times according to (Halling et al., 2020). The results show that, at the beginning of the pandemic, cash was secured almost entirely through debt, and stock issues were minimally researched (Halling et al., 2020; Acharya & Steffen, 2020).

The great need for additional financing of companies cannot always be met by financial institutions. With the onset of the crisis, banks and other lenders became more cautious and had difficulty granting credit, as the creditworthiness of debtors decreased. Thus, for many companies, the demand for financing was higher than what they could provide. Chodorow-Reich et al. (2020) and Kapan and Minoiu (2021) found that this problem is especially important for small and medium-sized companies, which have a harder time accessing credit in times of crisis. If companies are unable to obtain liquidity, they will fall into insolvency, even if their business is viable under normal conditions.

In order to prevent a large part of the real economy from falling into insolvency, most European countries have taken measures to support companies in meeting their immediate liquidity needs. The measures included: temporary deferral or remission of taxes; moratorium and restructuring of loans with deferral of repayments or extensions of deadlines; guarantees to facilitate the receipt of new loans on favorable terms; coverage of part of the working salaries and other operating expenses; direct aid to businesses with imposed restrictions, etc. The measures showed different effectiveness, with the greatest positive effect on liquidity being those supporting employment and current expenditures, followed by the measures related to debt servicing and the use of new loans, and the least impact was shown by tax deferrals. In addition, as a support for the liquidity of firms, the interventions of central banks supporting the normal functioning of financial markets also had an indirect impact. Overall, support measures had the strongest positive impact on firms with higher indebtedness, smaller companies and those with lower liquidity (IMF, 2021).

To address the economic consequences of the pandemic in 2020, the Bulgarian government initiated a package of anti-crisis measures aimed at assisting Bulgarian enterprises in accelerating the process of dealing with the negative impact on their activities. The policies and measures included both entirely national funding and funding with EU funds and national co-financing. Measures to support small and medium-sized enterprises included:

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- Support to SMEs operating bus and coach services.

The main factor that has supported economic activity to the greatest extent over the past four years is the expected absorption of funds under the National Recovery and Resilience Plan (NRRP) by both the private and public sectors.

Table 5. The results and progress of the implemented economic anti-crisis measures for the last 3 years are as follows:

Procedure	Disbursements	Number of SMEs allocated
2021 and 2022		
Supporting medium-sized enterprises to overcome the economic consequences of the pandemic	Disbursed – 209.4 mln. BGN. Payment is forthcoming – 1.8 mln. BGN.	1530 pcs. 12 pcs.
Support for small enterprises with a turnover of more than 500 thousand. Lv. to overcome the economic consequences of the pandemic	Disbursed: 84.1 mln. BGN. Payment pending: 16.1 mln. BGN.	1682 pcs. 322 pcs.
Working capital support for SMEs affected by temporary anti-epidemic measures (NRA) – Phase III	Paid – 13.5 mln. BGN.	2474 pcs.
Aug. 2020		
Supporting micro and small enterprises to overcome the economic consequences of the pandemic	Disbursed – 191.5 mln. BGN. Payment is forthcoming – 1.8 mln. BGN.	23575 pcs.
Supporting SMEs operating bus and coach services to overcome the economic consequences of the pandemic	Disbursed – 29.1 mln. BGN.	580 pcs.
Supporting SMEs in the tourism sector to overcome the economic consequences of the pandemic	Paid – 11 mln. BGN.	720 pcs.
Working capital support for SMEs affected by temporary anti-epidemic measures (NRA) – Phase I and II	Paid – 120 mln. BGN.	6850 pcs.

Source: Own processing

The government also proposed measures to support liquidity, using mainly EU resources, but also national ones, namely:

a) Increase in the capital of the state-owned Bulgarian Development Bank (BDB) by BGN 700 million. (0.6% of GDP for 2019), of which 500 mln. BGN. to be used for the issuance of portfolio guarantees to commercial banks for the extension of corporate loans, and the remaining 200 mln. BGN. for granting interest-free loans to employees on unpaid leave, self-employed persons and seasonal workers (up to BGN 4500).
b) Allocation of 1 billion. BGN. of the state-owned company „The Fund of Funds“ for providing subsidies to micro-enterprises, self-employed persons, entrepreneurs from vulnerable groups and eligible SMEs and companies;
c) Allocation of 800 mln. BGN. for the organization of a joint initiative between the European Investment Fund and the European Commission for the provision of a guarantee/loan to SMEs;

The overall assessment of the anti-crisis measures taken by the government to finance small and medium-sized enterprises is contradictory. According to a large part of the managers of the companies, including small and medium-sized ones, the measures were untimely and not well thought out. At the same time, it is reported that the funds paid by the state in support of medium-sized companies, according to the latest statistics, amount to BGN 209.4 million. The aid to the business is mainly with funds from EU funds. In addition to the measures described, as a response to the pandemic and the war, the country has prioritized loans to enterprises in order to obtain liquidity, and the small and medium-sized enterprises (SMEs) that have benefited from this type of lending are mainly from the tourism, trade and transport sectors. The crisis affects different sectors differently. The largest decline in sales was observed in consumer services (including tourism and restaurants) (-42.8%), energy and energy resources (-38.5%), transport (-14.1%), automobile manufacturing (-14.1%) and investment goods (-7.7%). For some sectors, there is a positive development with revenue growth – real estate (+14.4%), software (+11.8%), pharmaceuticals (+8.6%), and semiconductors (+8.6%).

Increased costs also have a negative impact on the financial results. First of all, it is due to the rise in the prices of some raw materials and materials, which have problems and delays in the supply chain. Another factor for higher costs is the increased cost of credit, which leads to higher interest costs. Due to unfavorable changes in income and expenses, there is also a decrease in profits. Taxes and depreciation and amortization (EBITDA) in 2020 compared to 2019 was 1.6% (OECD, 2021), while for 2022 it was 0.7% below (EBITDA) for 2021. On the other hand, the strongest growth in operating profits was observed in the real estate sector (+10.9%), software (+8.2%), and semiconductors (+6.9%).

4. FUTURE RESEARCH DIRECTIONS

In conclusion, we can summarize that most studies analyze a single country (developed countries) using qualitative tools. Furthermore, neoclassical theory is mostly used by researchers and policymakers to explain empirical observations and policymaking. In addition, there is quite inconclusive evidence on the relative value of loan guarantee schemes in terms of firm performance. Future research could revise the theoretical overview and assessment methods.

5. CONCLUSION

Guarantee instruments play a key role in providing financial opportunities for SMEs by overcoming some of the main challenges they face in obtaining financing:

- *Overcoming information asymmetry*: Guarantee tools help to compensate for the lack of information or the lack of transparency for the firm, which leads to uncertainty about the credit history or creditworthiness of SMEs. They can serve as a kind of guarantee for the bank or financial institution, thus reducing uncertainty and increasing the likelihood of providing financing.
- *Diversification or risk transfer:* Guarantee instruments allow lenders or investors to allocate the risk of lending to SMEs to third parties, such as guarantee funds or government institutions. This reduces the risk of financial losses for the original lender and makes the transaction more attractive.
- *Reduction of collateral requirements*: Often, guarantees can replace or supplement the standard collateral requirements that are required when obtaining loans or credits. This makes financing available to SMEs that may otherwise not have enough assets to provide traditional collateral.

The introduction of guarantee instruments was an important step to address the economic consequences of the COVID-19 pandemic and support businesses. They have helped to reduce financial risks and ensure the stability of the economy as we address the challenges faced by the global economy.

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