

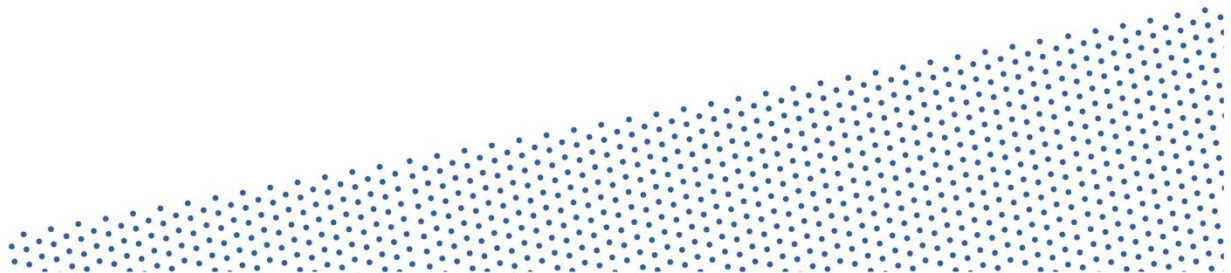
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EXPLORING THE EFFECTS OF BELGIUM'S COVID-19 LOAN GUARANTEES



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EN BEDRIJFSKUNDE**

KEY FINDINGS

- In April 2020, the Belgian government allocated €50 billion (11.8% of GDP) to guarantee loans for businesses facing liquidity problems due to the COVID-19 pandemic.
- The guaranteed loans were designed to support higher-risk borrowers who lacked sufficient collateral for traditional credit access. Beneficiaries of these loans gained access to additional funding with more favorable interest rates compared to other debt options.
- This GEI evaluates the impact of a 25 basis points reduction in interest rates on guaranteed loans provided to firms participating in the Credit Guarantee Program in 2020.
- The results reveal that firms receiving lower interest rates on credit guarantees increased their investment, employment, and revenues relative to other firms. Firms benefiting from reduced rates eased their overall financial burden, with every €1 provided at a lower rate replacing €0.13 of more costly non-guaranteed debt.

INTRODUCTION

Credit guarantees have become an important policy tool, particularly in periods of economic turmoil when liquidity issues arise. Guaranteed credit involves a third party—typically the government—assuring the repayment of a loan taken out by a firm, either partially or fully, if the borrower defaults. The guarantee reduces the risk for banks, encouraging them to extend credit to businesses that might otherwise struggle to secure financing.

The use of credit guarantees ignited a heated discussion regarding their effectiveness as a policy tool to support investment and employment growth for financially constrained firms. Some argue that guaranteed loans increase aggregate financial risk as banks are encouraged to extend credit to firms that cannot repay their loans, knowing that the government will cover the loss in the event of default. Critics also point out that credit guarantees could lead to misallocation of resources, as firms that may not be viable in the long term receive support, potentially crowding out more productive businesses.

Despite the concerns, one crucial feature of credit guarantees, largely overlooked in recent studies, is that they represent a less costly alternative for riskier borrowers than traditional unsecured loans. This is particularly beneficial for firms facing prohibitively expensive debt servicing costs as they are perceived as risky borrowers because they lack enough collateralizable assets to secure their loans. However, when a government-backed guarantee is in place, firms' default risk is reduced, which allows banks to offer lower interest rates. Credit guarantees help financially stressed firms maintain the liquidity needed to survive, continue investing, and avoid job destruction by lowering borrowing costs.

The benefits of lower interest rates for credit guarantees and their impact on firms' investment, employment, and production decisions are particularly relevant for Belgium for two reasons. First, in 2020, the Belgian government implemented a massive [credit guarantee program](#) providing loans to firms affected by liquidity problems due to the COVID-19 pandemic. More importantly, some firms receiving a guaranteed loan in 2020 were charged a relatively lower interest rate than

other eligible firms participating in the guarantee scheme in Belgium.

In this GEI, we evaluate the consequences of providing more favorable borrowing conditions on credit guarantees to firms participating in Belgium's 2020 credit guarantee program. We present novel evidence of the impact of lowering the interest rate for guaranteed loans on firms' investment, employment, and revenues. Moreover, we provide supporting evidence on the mechanism explaining why reducing the borrowing costs of credit guarantees impacts firms' economic decisions. This GEI is based on Önder and Villegas (2024).

Guaranteed credit involves a third party—typically the government—assuring the repayment of a loan taken out by a firm, either partially or fully, if the borrower defaults. Credit guarantees enhance financial access by lowering the marginal cost of borrowing and increasing the overall quantity of credit available.

THE IMPACT OF CREDIT GUARANTEES

We first provide the rationale and a general overview of the impact of credit guarantees on firms' economic performance.

The main objective of credit guarantees is enhancing financial access to firms characterized by insufficient collateral, limited credit history, and unreliable or nonexistent financial information. These firms, often excluded from the credit market, are particularly vulnerable during credit crunches (Gorton and He, 2008; Dinlersoz et al., 2018) and have no capacity to withstand economic downturns (Crouzet and Mehrotra, 2020).

Several studies have tried to evaluate the impact of improving financial access with credit guarantees. Most of the existing evidence shows that guaranteed loans increase employment and capital for financially constrained firms (Brown and Earle, 2017), with the only drawback being that they also raise the likelihood of unproductive firms continuing to operate (Gropp et al., 2020) which can restrict employment reallocation towards more productive firms (Barrot et al., 2021). Nonetheless, the consensus in the literature points towards a positive and significant effect of guaranteed loans on economic performance for financially constrained firms.

For financially constrained firms (i.e., firms with no access to credit markets), credit guarantees enhance financial access in two ways. On the one hand, there is an expansion in the absolute supply of credit because existing and new banks provide new guaranteed loans to firms credit rationed otherwise. On the other hand, there is a reduction in the marginal cost of borrowing because banks perceive the guaranteed loan as less risky; this eases the financial burden for financially constrained firms, allowing them to secure financing at more favorable terms.

However, the evidence on the main channel by which credit guarantees enhance financial access is mixed and inconclusive. Some evidence suggests credit guarantees mainly reduce firms' credit rationing due to the substantial increase in existent and new loans with credit guarantees (Mullins and Toro, 2018). On the contrary, other studies find that the benefits of guaranteed loans mainly come from the reduction in the interest rate, as evidence shows that firms with access to credit guarantees reduce holdings of unsecured debt (Bonfin et al., 2023).

Some studies suggest that capturing the impact of lower borrowing costs with credit guarantees could be more relevant for financially constrained firms. The reasoning is that firms' loans with at least some collateral usually get approved (Vos et al., 2007). However, they end up excluded from the credit market because of the elevated interest rate offered on the approved credit (Cusmano, 2018).

In summary, although credit guarantees improve firms' economic performance, there is no consistent evidence if the primary channel comes from an expansion of credit availability or a reduction in the interest rate. Measuring the impact of the interest rate channel seems more relevant for most firms that are constrained in their access to financial markets.

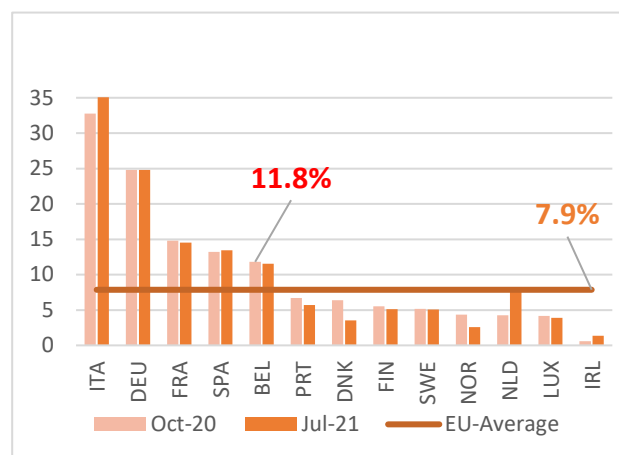
CREDIT GUARANTEES PROGRAMS IN THE EU

The role of credit guarantees was particularly recognized in the wake of the COVID-19 outbreak, as many policymakers advocated for targeted measures to aid firms with serious liquidity needs. The widespread implementation of guaranteed schemes resulted in about 44% of countries worldwide (82 out of 195) introducing

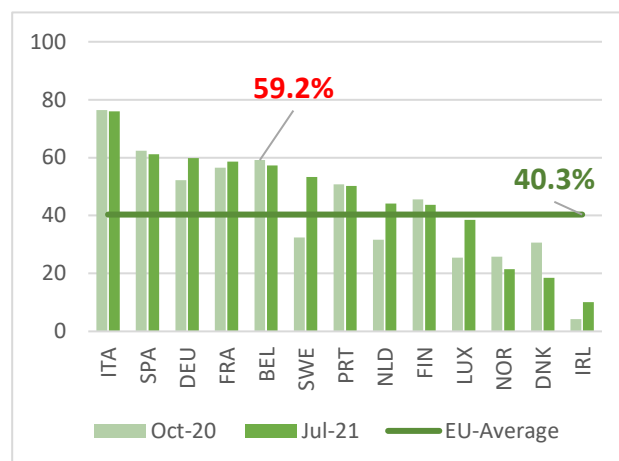
government-backed guaranteed credits during 2020-2021.

The case was not different for EU countries, with Germany, France, and Italy allocating around €1.9 billion to government-backed credit programs as early as April 2020 (Martin et al., 2023).

Figure 1– Credit Guarantees in the EU: 2020-2021



(a) Percentage of nominal GDP



(b) Percentage of Fiscal Measures due COVID-19

Source: [Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic.](#)

Public guarantee programs in the EU were the cornerstone of governments' strategy to mitigate the effects of the COVID-19 pandemic. By July 2021, all EU member states had already committed about €2,093 billion for the provision of credit guarantees to firms negatively impacted by the COVID-19 outbreak.

Figure 1 shows that the average EU credit guarantees program represented 7.9% of nominal GDP and captured about 40% of the total fiscal measures

implemented as a response to the pandemic. Within EU countries, Italy, Germany, France, Spain, and Belgium lead the ranking for the relative size of guaranteed schemes implemented during the pandemic.

Next, we provide a detailed discussion of the Credit Guarantee Scheme implemented in Belgium. We focus on characterizing five dimensions of the policy: (i) guarantee coverage, (ii) eligibility conditions, (iii) maturity, (iv) maximum loan amount, and (v) loan pricing and guarantee fees. As we argue later, the features of the Belgian guarantee scheme regarding loan guarantee fees provide the ideal scenario to evaluate the impact of lower interest rates on credit guarantees.

THE BELGIAN GUARANTEE SCHEME

The Credit Guarantee Scheme was announced on April 1, 2020, with an envelope of €50 billion, equivalent to 11.8% of GDP in that year. Even though the Belgian government implemented several measures to counteract the impact of the pandemic, the credit guarantee program played a central role, capturing approximately 60% of the total fiscal measures and more than 90% of the budget destined for debt alleviation measures to respond to the COVID-19 outbreak, respectively.

Belgian financial institutions received a fraction of the total envelope based on their market share to provide loans guaranteed by the Belgian government. Banks were required to issue new loans to any eligible firms that applied for a guaranteed credit but were allowed to "deselect" a fraction of eligible firms. In the event of firm default, the Belgian government guarantees 50% and 80% of the loan amount. However, the partial guarantee was only provided after the bank's reference portfolio losses accounted for 3%-5% and more than 5% for loans with 50% and 80% coverage ratios, respectively.

The program targeted firms with liquidity problems linked to the pandemic. The latter meant that, in order to be eligible to participate in the program, Belgian firms could not have: (i) any payment arrears on existing loans, tax and social security contributions by February 1, 2020, and (ii) any debt restructuring episode by January 31 2020. However, firms were allowed to be at most 30 days delinquent on payments by February 29, 2020.

There were two guarantee schemes implemented in Belgium during 2020-2021. The first scheme, valid from April 1st to December 31, 2020, extended any eligible

firm with a new loan with a maturity of up to a year. Firms could use the guaranteed loan for anything except to repay existing credits issued before April 1, 2020.

The €50 billion Belgian credit guarantees program implemented in 2020 was equivalent to 11.8% of the nominal GDP and captured 60% and 90% of the budget destined to total fiscal measures and debt alleviation measures to respond to the COVID-19 pandemic, respectively.

The loan amount was determined by the highest among (i) the firm's liquidity needs over 12 or 18 months, (ii) twice the last wage bill reported by the firm, and (iii) 25% of the firm's turnover reported in the previous financial report. However, the loan amount could not be higher than €50 million.

Regarding pricing for guaranteed loans, banks could charge a maximum interest of 1.25% in addition to a fee for the guarantee, which was later refunded to the government. A key element of the Belgian guarantees scheme is the specific fee structure: for Small and Medium Enterprises (SMEs), the fee was set to 25 basis points (bp), while for Large Enterprises, it was 50 bp.

In Belgium, SMEs (Large) are firms surpassing only one (two or more) of the following thresholds during the past two years: (i) 50 full-time employees, (ii) €4.5 million in assets, and (iii) €9 million in turnover.

Notice that the differential fee structure implemented with the Belgian guarantee scheme provides an ideal case for studying the effects of lowering interest rates on credit guarantees. On the one hand, the differential fee directly impacts the pricing conditions for credit guarantees: the interest rate is reduced deterministically by 25 bp for SMEs relative to Large enterprises. On the other hand, the classification of firms into SMEs or Large depends on characteristics observable and determined before the policy was introduced.

METHODOLOGICAL APPROACH

In [Önder and Villegas \(2024\)](#), we exploit the differential fee charged on guaranteed loans during the 2020 Belgian Guarantee scheme to estimate the impact of lowering the borrowing costs for guaranteed loans on firms.

Table 1. Impact on Firms' Economic Performance

Change in percentage points for	Investment Rate	Employment	Revenues
			Growth
Effect of lowering interest rate by 25 bp.	0.20** (0.08)	0.28*** (0.04)	0.34*** (0.02)
Observations	2,773	1,743	2,897

Source: Önder and Villegas (2024). *, **, ***, indicate significance at the 10%, 5%, and 1% respectively.

First, we gather balance sheet data of Belgian firms that (i) received a guaranteed loan in 2020 and (i) were classified as SMEs because they had at most 50 employees in 2018 or categorized as Large enterprises with more than 50 employees in 2018. Next, using a Regression Discontinuity Design, we estimate the impact of being treated by a lower interest rate on guaranteed loans by comparing firms just below the 50-employee threshold to those just above it.

Intuitively, our approach captures the causal impact of reducing interest rates for Belgian firms that received credit guarantees in 2020. The key idea is that firms near the employment threshold should be similar in all aspects except one: those with fewer than 50 employees in 2018 benefited from a relatively lower guarantee fee, which in turn reduced the interest rate on their guaranteed loans. Supporting this assumption, our study found no significant differences in assets, debt, labor costs, or profitability between firms just above and just below the employment threshold prior to the implementation of the guarantee scheme in Belgium.

For the Belgian guarantee scheme, a differential guarantee fee resulted in a 25 bp lower interest rate for guaranteed loans issued to SMEs relative to Large enterprises.

KEY RESULTS

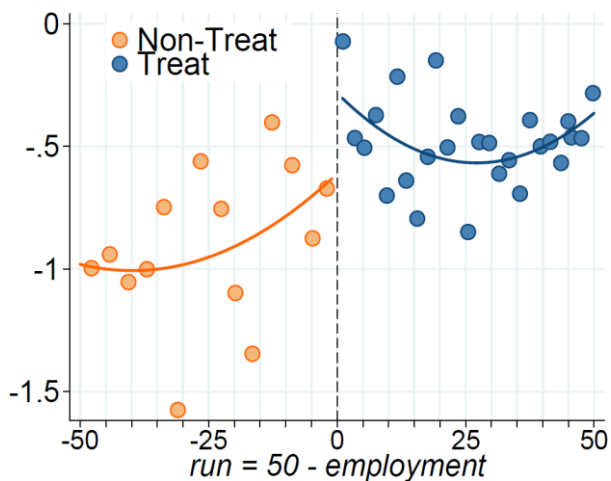
We first describe the results on firm's performance. The variables of interest are investment rate, employment growth, and revenue growth.

Figure 2 summarizes the impact on the economic performance of firms at the end of 2020. In each plot, the x-axis shows the distance of firm's employment in 2018 from the 50-employee threshold. The firms to the right of the zero-line (i.e., with less than 50 employees in 2018) received a relatively lower interest rate than the firms to the left of the zero-line (i.e., with more than 50 employees). The dots represent average outcomes for firms at different distances from the threshold, and the lines show quadratic trends for firms on either side of the cutoff. We observe an upward jump in investment rate, employment growth, and revenue growth when moving along the employment cutoff.

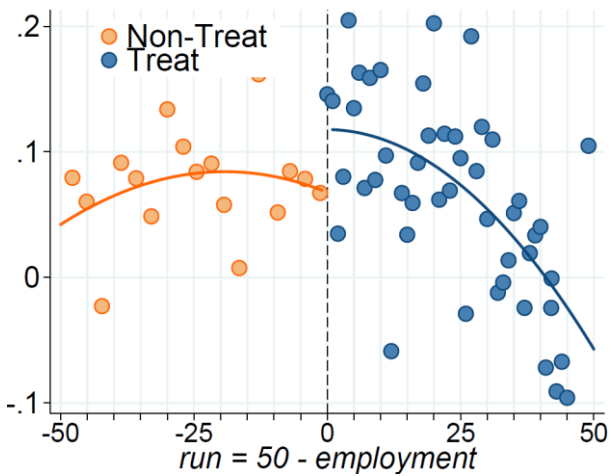
The estimates reported in Table 1. confirm the visual evidence: in 2020, the investment rate, employment growth, and revenue growth were 0.20 pp., 0.28 pp., and 0.34 pp. higher for firms borrowing guaranteed debt at a 25 bp lower interest rate.

We also perform a placebo test using the same outcomes for firms above and below the employment threshold but the year prior to the start of the policy. Graphically, we observe no sizable jump in investment, employment growth, and revenue growth along the employment cutoff one year before the Belgian guarantee scheme was implemented. This result suggests that the differences in firms' economic performance in the year of the policy are not driven by pre-existing disparities before the introduction of the guarantee program.

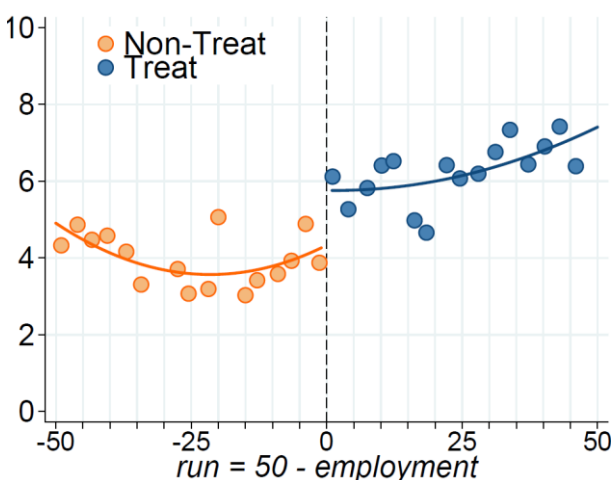
Figure 2 – Economic Performance: 2020



(a) Investment Rate (%)



(b) Employment Growth (%)



(c) Operating Revenue Growth (%)

Source: [Önder and Villegas \(2024\)](#)

Belgian firms that benefited from lower interest rates on their credit guarantees in 2020 experienced significant improvement in investment, employment growth, and revenue growth. These firms reduce their financial burden by lowering €0.13 of more expensive non-guaranteed debt for every €1 of guaranteed credit they receive at 25 bp lower interest rate.

EXPLORING THE MECHANISM

The empirical results presented earlier indicate that reducing borrowing costs through credit guarantees enhances firms' economic performance. In this section, we validate whether the empirical approach captures credit guarantees' price effect. Specifically, we examine the impact on the financial burden and debt portfolio of Belgian firms that received relatively lower interest rates on their credit guarantees in 2020.

In this case, the main outcomes are the growth of guaranteed debt, growth of non-guaranteed debt, and average interest costs.

Table 2 presents the estimates on these variables for 2020. On the one hand, we find no significant difference in the growth of credit guarantees for firms receiving a lower or higher interest rate in the year of the policy. On the other hand, firms receiving lower interest rates reduce their non-guaranteed debt growth by 0.18 pp. The latter implies that each €1 of credit guaranteed received at a 25 bp lower interest reduces non-guaranteed debt by approximately €0.13. Lastly, we find that the average interest costs are reduced by 0.015 pp for firms benefiting from better price conditions on credit guarantees.

Overall, our findings are consistent with the price effect of credit guarantees: firms receiving relatively lower interest rates do not increase their holdings of guaranteed debt but reduce their average interest costs by lowering their balances on costlier non-guaranteed debt.

Credit guarantees play a crucial role in mitigating liquidity challenges during periods of financial turmoil. Their effectiveness in stimulating investment and employment growth lies in two key factors: encouraging banks to extend financing to firms that may otherwise struggle to secure loans and lowering interest rates, making

borrowing more affordable for businesses. This dual impact enhances firms' capacity to invest, grow, and retain employees, especially during economic downturns.

In this GEI, we presented evidence of the impact of credit guarantees on firms through the price channel. Empirically, we focus on the 2020 Belgian credit guarantee scheme. For this policy, a differential fee for the guarantee produced a 25 basis points lower interest rate on credit guarantees for SMEs with less than 50 employees compared to Large enterprises with more than 50 employees. We evaluate this feature of the policy on firms' economic performance, debt portfolio, and financial burden.

CONCLUSIONS

Our findings reveal that Belgian firms that benefited from lower interest rates on their credit guarantees in 2020 experienced a substantial upturn in investment, employment, and revenue growth in the year the policy was implemented. The results indicate that the primary channel influencing firms' economic performance was the reduction in interest rates rather than an expansion of credit availability. Specifically, we find that every €1 of guaranteed loans provided to firms at 25 bp lower interest rate, reduce non-guaranteed debt by €0.13. The substitution in the debt portfolio allowed firms to reduce their overall financial burden.

Table 2. Impact on Guaranteed, Non-Guaranteed Debt, and Financial Costs

Change in percentage points for	Guaranteed Credit	Non-Guaranteed Credit	Average Interest Costs
	Growth		
Effect of lowering interest rate by 25 bp.	-0.003 (0.02)	-0.181** (0.09)	-0.015*** (0.00)
Observations	1,437	1,518	2,264

Source: [Önder and Villegas \(2024\)](#). *, **, ***, indicate significance at the 10%, 5%, and 1% respectively.

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