FOGAPE-COVID as a Crisis Policy Tool: Lessons from Existing Evidence

Cristián Sánchez*

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Abstract

The COVID-19 crisis generated severe economic disruptions in Chile, particularly for small and medium enterprises (SMEs). In response, the government reinforced its public credit-guarantee mechanism by launching FOGAPE-COVID as a countercyclical emergency tool designed to sustain liquidity, employment, and credit flows. This paper synthesizes key evaluations of FOGAPE-COVID, highlighting its effectiveness as a crisis response instrument while noting the operational and institutional challenges identified in the literature. The evidence indicates that FOGAPE-COVID successfully mitigated immediate default risks and supported credit access for SMEs during the acute phase of the pandemic. However, long-term analyses reveal that while the program postponed defaults, it did not prevent them, underscoring the importance of considering repayment structures in program design. The partial guarantee structure preserved banks' screening incentives, reducing moral hazard and ensuring a more efficient allocation of credit. Additionally, the program's design features—such as interest rate caps, deductibles, and eligibility criteria—played crucial roles in containing aggregate risk and fiscal exposure. The studies reviewed also emphasize the significance of intermediary behavior, particularly banks' responses to guarantee incentives, which can lead to risk-shifting practices that need to be managed through careful program design and oversight.

*Financial Research Unit, Central Bank of Chile. Agustinas 1180, Santiago, Chile. E-mail: csanchez@bcentral.cl. The views expressed are those of the author and do not necessarily represent the views of the Central Bank of Chile or its board members. All errors are my own.

1 Introduction

The COVID-19 pandemic resulted in a sudden, deep contraction of economic activity in Chile. SMEs—already facing structural credit constraints—were especially vulnerable to collapsing sales and tightening liquidity. To prevent widespread business closures and mitigate macroeconomic collapse, the Chilean government expanded its public guarantee scheme through FOGAPE-COVID. A growing body of evidence suggests that the program played a central role in preserving liquidity and credit access during the acute phase of the shock, while also raising fundamental questions about targeting, intermediary incentives, and the transition from emergency support to repayment.

Despite the program's scale, the policy questions it raises are familiar across crisis episodes and across countries. When private credit supply contracts abruptly, public guarantees and subsidized liquidity can prevent inefficient liquidation and preserve productive relationships. At the same time, rapid deployment can weaken targeting, distort bank screening, and shift risk to the public balance sheet. Evaluating crisis credit programs therefore requires looking beyond contemporaneous credit volumes and toward the mechanisms that govern (i) who receives support, (ii) how intermediaries adjust pricing and screening, and (iii) whether emergency liquidity is translated into sustainable repayment paths once the shock dissipates.

This note takes stock of the growing evidence on FOGAPE-COVID with the specific aim of extracting design lessons for future programs. Rather than presenting new causal estimates, it synthesizes what the existing evaluations jointly imply about program effects and trade-offs. The studies reviewed highlight three recurring themes. First, FOGAPE-COVID expanded credit quickly and at favorable terms, with particularly strong relevance for SMEs during the acute phase of the pandemic. Second, the partial-guarantee and deductible structure appears to have preserved some bank discipline, but the evidence also points to important margin adjustments by intermediaries (including reclassification and risk shifting) that matter for both efficiency and fiscal exposure. Third, repayment design and program exit are central: the program postponed defaults, but did not eliminate them, underscoring that crisis tools must be paired with credible post-crisis restructuring and repayment strategies.

Taken together, these findings suggest several transferable lessons for crisis preparedness in Chile and in other economies that rely on bank-intermediated credit. A guarantee program can be an effective first-line liquidity backstop when shocks are sudden and broad-based, but its performance depends on a small set of design choices that generalize across institutional settings: targeting rules that prioritize viable but illiquid firms; pricing and coverage parameters (caps, deductibles, and partial guarantees) that preserve lender discipline;

transparent allocation and monitoring that limit strategic reclassification and risk shifting; and, crucially, repayment and exit provisions that manage the transition from emergency liquidity to post-crisis balance-sheet repair. Framing FOGAPE-COVID through these mechanisms helps separate what is specific to Chile's institutional architecture from what can inform the design of future crisis credit interventions elsewhere.

The remainder of the paper proceeds as follows. Section 2 describes FOGAPE and the main institutional and contractual features of the COVID expansion. Section 3 briefly situates government-guaranteed lending programs in the international evidence to clarify the channels through which design features shape outcomes. Section 4 then reviews the Chilean evaluations paper-by-paper, emphasizing identification strategies and the mechanisms each study uncovers. Section 5 combines these findings into a unified framework of design levers—targeting, pricing and quantity rules, incentive compatibility and oversight, coordination with complementary policies, and repayment and exit—to inform the design of future crisis credit interventions. Section 6 concludes.

2 Chile's Government Guaranteed Loans Program: FOGAPE COVID

The Small and Medium Enterprise Guarantee Fund (FOGAPE) was created in 1980. FOGAPE guarantees loans, leasing operations, and other financial products that public and private financial institutions offer to small and medium-sized firms. The primary funding sources of FOGAPE are government contributions, fees for guarantee services, and returns on fund investments. Banco Estado, Chile's main public bank, manages the program, and the Financial Market Commission (CMF), the country's financial regulator, supervises it.

FOGAPE allocates guarantees to banks, who decide on firm applications based on their internal criteria. Over time, the program has adjusted the borrower's eligibility, coverage rates, and usage restrictions.

In response to the COVID-19 pandemic, the Chilean government expanded FOGAPE's size and scope to enhance firms' access to financial markets. On April 24, 2020, Law 21,229 temporarily modified FOGAPE (FOGAPE COVID). This law increased the fund's capital by USD 3 billion, allowing for up to USD 33 billion in guarantees—approximately 10 percent of Chile's GDP. FOGAPE COVID expanded eligibility to include medium-sized and some large firms (up to UF 1,000,000 in sales), which had traditionally been ineligible.[1] To qualify

[1]UF is a unit of account used to adjust values for inflation in Chile. As of October 2025, 1 UF is approximately

for the program, firms must meet the following eligibility requirements: they cannot have overdue loan payments exceeding 30 days within the banking system, they must not have an individual risk classification of C1 or lower, and they cannot be undergoing reorganization or liquidation.[2]

FOGAPE COVID has established several conditions for loans granted with government guarantees. These include a maximum interest rate of the monetary policy rate (MPR) plus 3%, a limit on the total amount of FOGAPE COVID loans of one quarter of the firm's annual sales, financing restricted to working capital only, a grace period of at least six months, and loan terms between 24 and 48 months.[3]

The program stipulates that guarantee rates are determined by firm size, with smaller firms receiving higher guarantee rates. There are four size categories: micro (below UF 2,400 in annual sales), small (UF 2,400–25,000), medium (UF 25,000–100,000), large I (UF 100,000–600,000), and large II (UF 600,000–1,000,000). The guarantee rate for loans to micro and small firms is 85%. The guaranteed rate for loans to medium-sized firms is 80%, for large I firms it is 70%, and for large II firms it is 60%.

The program also includes a deductible for banks on each size-specific portfolio of guaranteed loans, designed to ensure that banks internalize some of the costs in case of default. Initially, these deductibles were higher for smaller firms, likely due to their higher default risk. However, as of June 30, 2020, all firm sizes were subject to a standardized deductible of 2.5%. The deductible significantly impacts the effective guarantee rates. For example, for small firms with an 85% guarantee and a 2.5% deductible, a 20% default rate results in an effective coverage rate of 75%. Table 1 below presents the guarantee rates and deductibles by firm size.

USD 40.

[2]Banks must assign a risk rating to borrowers when their exposure to the borrower is significant. Borrowers with overdue payments exceeding 90 days or those likely to require debt restructuring receive an individual risk rating ranging from C1 to C6.

[3]In April 2020, the MPR was 0.5%, resulting in an effective interest rate of 3.5%, which was favorable compared to market rates for most firms.

Table 1: Guarantee Rates and Deductibles by Firm Size

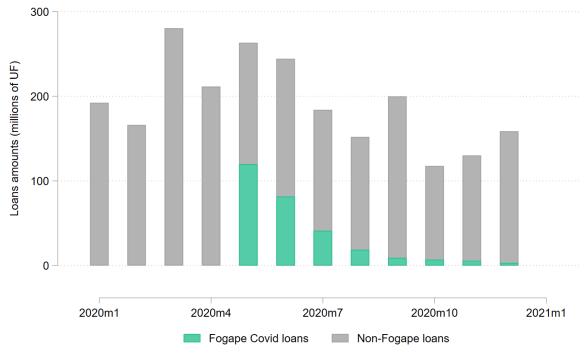
Type of firms	Net annual sales (UF)		Guarantee rate (%)	Deductible (%)
	Above	Below		
Micro and small	0	25,000	85	5 (2.5 after 6/30/2020)
Medium	25,000	100,000	80	3.5 (2.5 after 6/30/2020)
Large I	100,000	600,000	70	2.5
Large II	600,000	1,000,000	60	2.5

Notes: This table reports guarantee rates and deductibles for FOGAPE COVID by firm size.

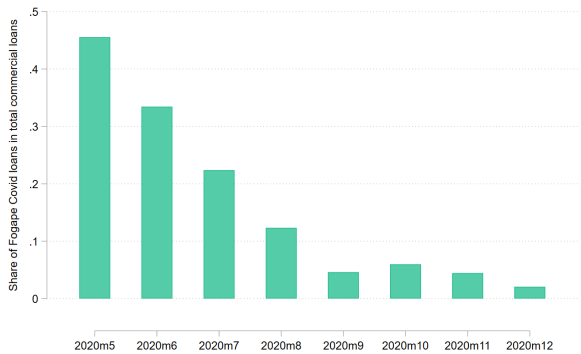
To understand the program's impact on aggregate firms' credit access, Figure 1 shows the evolution of the commercial loans of FOGAPE and non-FOGAPE for the year 2020 in Chile.[4] Panel A shows that the COVID loans of FOGAPE were concentrated during the first four months of operation (May to August) and helped mitigate the contraction in credit caused by the pandemic. Panel B shows the share of FOGAPE COVID loans relative to all commercial loans. FOGAPE COVID loans represented 45% of commercial loans granted in May 2020 and 19% during the period from May to December 2020.

Figure 1: FOGAPE COVID vs. Non-FOGAPE COVID Commercial Loans

A. Loan amounts



B. Share of commercial loans



Notes: This figure shows the evolution of commercial loan amounts in Chile in 2020, categorized into FOGAPE COVID and non-FOGAPE COVID loans. The data includes commercial loans denominated in Chilean pesos, US dollars, euros, or UF, excluding factoring loans and repurchase agreement operations.

The importance of FOGAPE COVID as a funding source varied by firm size. It was more

[4]Commercial loans as those extended to firms in Chilean pesos, US dollars, euros, or UF, excluding factoring loans and repurchase agreement operations.

important for small- and medium-sized firms (42% and 39% of total commercial loans in May–December, respectively), followed by micro firms (22%), and lastly, large firms (14%). The lower share for large firms is expected, as they may have access to other funding sources at costs similar to FOGAPE, and many large firms are not eligible for the program due to their size. The results for micro firms are more puzzling but may be related to eligibility conditions, such as the requirement of no overdue loan payments for 30 days to access the program or banks being more reluctant to finance these smaller firms even with government guarantees.

The financing conditions offered by FOGAPE COVID were quite advantageous, especially for smaller firms. In 2020, the average interest rate for FOGAPE loans was 3.5%, with an average loan term of 40 months. In contrast, the average interest rates for non-FOGAPE loans were significantly higher: 11.9% for micro firms, 10.6% for small firms, 8.3% for medium-sized firms, and 4.9% for large firms. The average loan terms were also shorter: 29 months for micro and small firms, 20 months for medium-sized firms, and 9 months for large firms.[5]

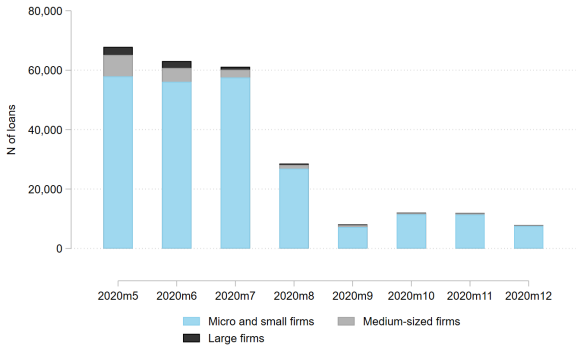
Figure 2 shows information about FOGAPE COVID loans by firm's classification.[6] When we focus on the number of loans, panel A shows that most loans were granted to micro and small firms. In May–December 2020, 90% of the loans were granted to micro or small firms, 7% to medium-sized firms, and 3% to large firms. However, when we consider total loan amounts, the share of larger firms increases significantly (panel B). In May–December 2020, 34% of the total loan amounts were granted to micro or small firms, 25% to medium-sized firms, and 41% to large firms.

[5]Non-FOGAPE loans include commercial loans in Chilean pesos at a fixed rate, excluding factoring loans and repurchase agreement operations.

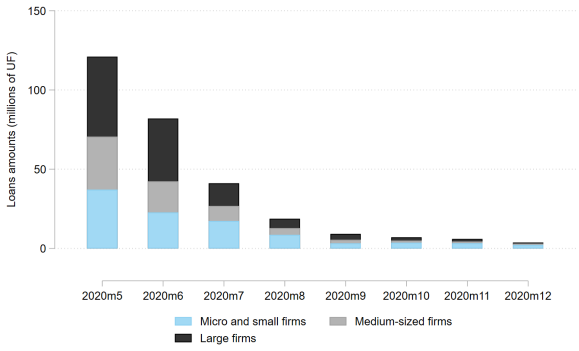
[6]For confidentiality reasons, large I and large II firms are combined into a single group called large firms.

Figure 2: FOGAPE COVID Loans, by Firm Size

A. Loan count



B. Loan Amount



Notes: This figure shows the number and amount of FOGAPE COVID loans, categorized by firm type. Firms are classified based on their annual sales as follows: micro and small firms with sales below UF 25,000, medium-sized firms with sales between UF 25,000–100,000, and large firms with sales between UF 100,000–1,000,000.

There are also large differences in loan sizes across firm types. The average loan was UF 416 (approximately USD 17,000) for micro or small firms, UF 4,160 UF (approximately USD 166,000) for medium-sized firms, and UF 6,665 (approximately USD 267,000) for large firms.

This institutional overview clarifies the key policy "knobs" embedded in FOGAPE-COVID—eligibility rules, caps on rates and loan sizes, partial guarantees, and deductibles—that the following sections connect to observed outcomes. The next section briefly places these design choices in the broader international evidence on crisis-lending programs.

3 Brief Overview of International Evidence on Crisis-Lending Programs

To interpret the Chilean evidence in context—and to motivate the design "knobs" highlighted in the next sections—it is useful to briefly situate FOGAPE-COVID within the broader wave of crisis credit programs deployed internationally during the COVID-19 shock. Across countries, government policy relied heavily on either (i) direct subsidized lending or (ii) government-guaranteed lending intermediated by banks, often combined with liquidity provision and payroll support. The international evidence is not a substitute for country-specific evaluation, but it helps discipline expectations about what such programs can (and cannot) achieve: they can be effective at preventing short-run illiquidity-driven failures, yet their ultimate

welfare and fiscal performance depends critically on targeting, screening incentives, and the transition from emergency liquidity to post-shock repayment.

A first group of empirical studies evaluates large-scale crisis lending programs through the lens of SMEs' real and financial outcomes. In the U.S., studies of the Paycheck Protection Program (PPP) (Denes et al., 2021; Autor et al., 2022b; Chodorow-Reich et al., 2022; Dalton, 2023; Agarwal et al., 2024) document short-run gains in employment, firm survival, and commercial mortgage repayment during the year of the shock. Yet these effects appear modest relative to the size of the fiscal outlay, and a non-trivial share of support did not reach the intended targets (Autor et al., 2022a; Granja et al., 2022). A complementary perspective comes from Kim et al. (2025), who use linked household–business financial data to show low pass-through from revenue losses to small business owner consumption during the pandemic, consistent with crisis policy buffering households' liquidity.

From the perspective of program design, the PPP provides a useful benchmark precisely because it differs from partial-guarantee schemes like FOGAPE: loans were fully guaranteed and largely forgivable, which muted banks' incentives to screen and limited the direct costs borne by firms. This contrast helps frame a central theme of this note: when programs rely on private intermediation, the degree of risk-sharing with banks and the repayment structure shape selection, credit allocation, and ex-post performance.

A related set of papers studies government-guaranteed loans (GGLs) more directly as crisis tools.[7] This literature also finds positive short-run effects on firms' real and financial outcomes (Hackney, 2023; Jiménez et al., 2024; Bachas et al., 2021), but highlights two recurring tensions that are directly relevant for interpreting and designing crisis guarantees. First, subsidized and guaranteed lending can crowd out private credit or reshape bank portfolios in ways that persist beyond the acute phase (Altavilla et al., 2025; Jiménez et al., 2018). Second, program rules can create scope for mis-targeting or strategic responses, making incentive design and administrative enforcement central.

Taken together, this international evidence motivates why the Chilean setting is informative: FOGAPE-COVID sits between "forgivable, fully guaranteed" lending and standard credit expansion policies. Its partial guarantees, size-dependent terms, and caps were intended to preserve screening incentives while delivering rapid liquidity. With this context in place, the next section turns to the main firm- and loan-level evaluations of FOGAPE-COVID, emphasizing what they imply about policy mechanisms and design trade-offs.

[7] More broadly, smaller-scale GGL programs in normal times aim to expand credit access for firms facing collateral constraints, limited credit history, or limited financial expertise (Beck et al., 2010; Lelarge et al., 2010; Brown and Earle, 2017; Mullins et al., 2018; Bertoni et al., 2023; Stillerman, 2024).

4 Policy Lessons from FOGAPE COVID Evaluations

This section reviews four complementary evaluations of FOGAPE-COVID that together cover the program's key channels: credit supply and screening under partial guarantees, interactions with other crisis instruments (notably employment support and central bank liquidity), intermediary strategic responses, and post-crisis repayment dynamics. Throughout, the objective is not to rank papers but to extract the recurring mechanisms through which program rules map into outcomes.

4.1 FOGAPE-COVID and Concurrent Employment Support: Integrated Lessons from Huneeus et al. (2025)

Chile's crisis response paired a large, low-rate, partially guaranteed loan program (FOGAPE-COVID) with an employment protection scheme that financed wages while contracts were frozen. The credit program injected up to 4.6% of GDP at a capped interest rate of 3.5%, with guarantee coverage decreasing by firm size and a first-loss deductible that preserved banks' "skin in the game"; the employment program reached 0.62% of GDP and imposed a real opportunity cost on firms, since they had to scale down activity while receiving wage support. In this joint-policy environment, riskier firms disproportionately demanded guaranteed credit, while banks screened these applications aggressively—especially for larger firms that carried lower effective guarantees and higher potential loss-given-default—so the demand effect dominated on quantities but the supply effect materially improved borrower composition.

The data link transaction-level credit (applications, approvals, terms), comprehensive bank exposures, and administrative tax records for the universe of formal firms. Three robust facts emerge. First, riskier firms applied more, were less likely to be approved conditional on applying, and—when approved—levered up more; the net result was a broad-based increase in indebtedness concentrated in riskier users, with average leverage rising by about 13–14.5 percentage points among program participants. Second, employment protection take-up was largely orthogonal to ex-ante credit risk but strongly related to real-side distress (sales collapses, lockdowns). Because using the employment program signals operational scaling-down, banks became more selective with such applicants; at the same time, firms that combined both instruments required less credit, so joint use tempered debt build-ups. Third, despite the intensive margin risk tilt, most pesos flowed to large, safer firms—simply because they represent a larger share of aggregate sales—so aggregate risk remained contained relative to micro selection patterns.

Aggregate risk accounting confirms that design features mattered substantially. For formal firms, expected loss on the guaranteed portfolio is estimated at roughly 0.27% of GDP; including natural persons borrowing as firms raises this to 0.45% of GDP, about 1.07–1.54% of bank equity, which is not a solvency concern. Deductibles and partial coverage reallocated moderate default risk to banks and reserved tail risk to the state: in 2020 conditions, banks bore about 59% of expected loss and government 41%; removing deductibles would have flipped the split, pushing the government's share toward three quarters of the total. Counterfactuals illustrate how policy "knobs" scale risks: lifting the default-based eligibility screen nearly triples expected loss (from 3.7% to 9.9% of baseline credit), while cutting loan caps from three to one month of sales lowers expected loss markedly; eliminating guarantees causes credit to contract to the safest borrowers and expected loss to fall; removing the employment program both raises average default probabilities and expands credit demand, increasing expected loss by roughly one third.

A calibrated macro model that endogenizes firms' borrowing/default and banks' pricing validates the empirical message and adds two design insights. First, the interest-rate cap plays a central role by making high-risk lending unprofitable, thereby limiting adverse selection even as guarantees and liquidity facilities expand supply; removing the cap leads banks to lend more to riskier firms at high rates, raising defaults and losses. Second, realistic recovery rates meaningfully shrink the state's *actual* fiscal burden versus expected loss measures that assume zero recovery. Under a systemic shock akin to the Global Financial Crisis, losses more than double, but the cap–guarantee–deductible triad still moderates risk spillovers.

These results yield crisp lessons for FOGAPE as a crisis policy tool. Low, uniform caps and partial guarantees work best as a package: caps curb the riskiest lending at the source; partial guarantees and deductibles preserve banks' screening incentives and shift non-tail risk back to lenders; eligibility rules that exclude recent defaulters materially limit aggregate losses. Pairing credit with an employment program reduces firms' financing needs and provides an informative signal that improves bank screening, especially when sales shocks are driven by mandated closures; while the employment program is smaller in dollars, it is a useful *complement* that helps contain aggregate risk. At the same time, the paper shows why "bigger is better" is not generally true: absent the cap or eligibility filters, the same guarantee budget could have supported substantially more risk-taking and higher expected losses. Finally, micro selection toward riskier approved users does not automatically jeopardize macro stability when most credit volume goes to safer, larger firms under binding caps and deductibles. For future FOGAPE iterations, a practical synthesis is to keep partial guarantees with explicit first-loss deductibles, retain binding interest caps during acute phases, enforce exclusion of recent defaulters (or impose tighter terms), and preserve coordination with employment

support so that liquidity relief and labor hoarding policies jointly stabilize without unduly inflating leverage. In all cases, the program should be stress-tested against systemic shocks and calibrated recognizing recovery values, since expected-loss metrics that ignore recoveries overstate fiscal exposure relative to realized burdens.

4.2 FOGAPE-COVID as a Crisis Policy Tool: Lessons from Five-Year Firm-Level Evidence

Chile's FOGAPE-COVID program functioned as a powerful liquidity bridge during the height of the pandemic, and long-run evidence by Chittaro and Sánchez (2025) clarifies both the strengths and structural limitations of this type of intervention. In the immediate aftermath of the COVID-19 shock, guaranteed loans substantially reduced firms' default risk—between 2.5 and 5.3 percentage points in the first two years—showing clearly that the program succeeded in its core short-run mission of preventing mass failures among liquidity-constrained SMEs when revenues collapsed and uncertainty surged. However, the same loans that preserved firms early on also sharply expanded their indebtedness: nearly half of approved firms at least doubled their pre-crisis debt load within a year, making the program's effects inherently time-bound. Once repayment obligations arrived in 2022, the initial gains dissipated and the probability of default rose for surviving firms. The program effectively postponed defaults rather than preventing them, illustrating that the maturity design of emergency credit is as important as the initial disbursement.

Even with this reversal, the structure of the program ensured a surprisingly efficient allocation of support. Banks retained partial risk exposure because guarantees covered only a share of losses, and this preserved their incentive to screen borrowers carefully. The evidence shows they approved firms that were less likely to default even without government support, using private, relational information that the state could not observe. This underscores a critical design lesson: maintaining partial guarantees rather than full coverage is essential for leveraging banks' information advantages and reducing misallocation risks. Full guarantees would likely have produced far greater fiscal costs, weaker credit discipline, and more distorted firm behavior. Notably, the program's structure also kept bank rents small—around five percent of the total taxpayer cost—demonstrating that fixed loan rates and guarantee caps can be calibrated to limit windfall gains for financial intermediaries.

The program also generated meaningful welfare improvements overall. By combining reduced short-run default risk with access to long-term, subsidized liquidity, FOGAPE-COVID delivered welfare gains that exceeded its fiscal cost by roughly twenty-one percent,

equivalent to about USD 1,860 per approved firm. Yet these averages conceal important heterogeneity. Around a quarter of approved firms did not produce benefits that offset their taxpayer cost, while others—particularly smaller, more leveraged firms—experienced large and socially efficient gains. Perhaps the most striking finding is that *young firms* stand out as the most cost-effective recipients of guaranteed credit: they gained far more from the program than older firms, with welfare gains exceeding taxpayer costs by an estimated 57–80 percentage points depending on the metric. These firms have high growth potential and high marginal returns to investment, but they are also riskier and more leverage-dependent, which made banks reluctant to approve them under uniform guarantee rules. As a result, young firms were about forty percentage points less likely to receive guarantees than older firms—despite generating the highest social returns when they did obtain them.

This mismatch reveals a critical opportunity for future FOGAPE design. Age is an observable, administratively simple characteristic that captures firm growth potential far better than size and would make guarantee programs more efficient without adding complexity. Counterfactual simulations in the paper show that a budget-neutral redesign that increases guarantee coverage for younger firms while modestly reducing it for others could raise aggregate welfare by about six percentage points and increase overall approvals by four percentage points. This type of retargeting improves cost-effectiveness without expanding fiscal outlays, illustrating that better allocation—not necessarily bigger budgets—is the key margin along which to improve crisis credit programs.

The long-run pattern of rising defaults also highlights the importance of designing repayment phases that do not unintentionally create solvency risks. While FOGAPE-COVID loans kept firms alive when liquidity evaporated, their back-loaded repayment schedules exposed many to trouble once conditions normalized. Policymakers can mitigate this by embedding mechanisms such as revenue-contingent repayment, conditional maturity extensions tied to macro or sectoral recovery, or early-warning systems tied to leverage and debt-service indicators. Another finding reinforces the need for such safeguards: moral hazard under the program was modest overall, but more pronounced among firms that were relatively safe before the crisis and experienced favorable shocks, meaning that the least socially beneficial borrowers were the most likely to take on additional risk. Tailoring guarantee levels downward for these firms would help reduce inefficient risk-taking while freeing fiscal space to support high-return segments.

Across all these findings, the overarching insight is that FOGAPE-COVID worked exceptionally well as an emergency liquidity instrument but was not designed to manage the solvency transition afterward. The program's strengths—speed, breadth, partial guarantees,

fixed rates, loan-size caps, and the leveraging of banks' information—should be preserved. Its weaknesses—uniform guarantee rates that under-serve young, high-growth firms, heavy back-loading of repayment, and insufficient safeguards against post-shock leverage—can be addressed through thoughtful redesign. With modest parameter adjustments oriented around partial guarantees, age-based targeting, and repayment-phase risk management, future FOGAPE-style programs can deliver higher welfare gains, reduce fiscal waste, and better support the dynamic, high-potential firms that drive long-run recovery and growth.

4.3 Bank Risk Shifting and Firm Reclassification Under FOGAPE-COVID

de Elejalde and Sánchez (2025) study how government credit guarantees can alter banks' incentives and induce risk shifting, using the FOGAPE-COVID program in Chile as a natural laboratory. The program was exceptionally large, allowing guarantees of up to roughly ten percent of GDP during the pandemic, and featured a distinctive design that combined fixed low interest rates, guarantee rates that varied sharply by firm size, and size-dependent deductibles. These features created meaningful variation in the private benefits banks could obtain by allocating guaranteed loans, as well as explicit costs arising from documentation requirements and the risk of ex-post denial of guarantee payments. Exploiting this institutional setting and rich administrative data linking tax records, credit registries, and loan-level information, the paper focuses on a specific and measurable margin of risk shifting: banks' reclassification of firms into size categories that carry higher government guarantees.

The core empirical finding is that banks do reclassify firms in ways that increase the share of credit covered by higher guarantee rates, although this behavior is far from mechanical. When all sales-based criteria provided by the program administrator agree on a firm's size, banks overwhelmingly comply with the instructed classification. However, when the classification criteria conflict and banks have discretion, reclassification becomes frequent. In these discretionary zones, banks systematically tilt classification toward the small-firm category, which benefits from an 85 percent guarantee rate compared to 80 percent for medium-sized firms. Even more revealing, when all criteria instruct banks to classify a firm as medium, compliance weakens as firms' sales approach the discretionary threshold, and a non-trivial fraction of firms are nevertheless classified as small. This pattern indicates that banks actively arbitrage the program's rules when the costs of doing so are sufficiently low.

The paper shows that risk shifting is closely tied to information and existing lending relationships. Reclassification toward smaller size—and thus higher guarantees—is significantly

more likely for firms that already have a lending relationship with the bank. This pattern contrasts with firms that merely have a credit history elsewhere in the financial system, for which reclassification behavior is much weaker. The evidence suggests that banks use private, relationship-specific information to target reclassification where it is most profitable, rather than applying a blanket strategy across all borrowers. At the same time, banks appear to internalize the fact that adding guaranteed debt to already indebted relationship borrowers can increase default risk, strengthening incentives to shift that risk toward the government through higher guarantee coverage.

To interpret these findings, the paper develops a structural model of firm classification under credit guarantees. In the model, banks trade off the expected benefit of higher guarantee rates—especially for riskier firms and larger loans—against fixed classification costs associated with deviating from the administrator's suggested size. These costs reflect documentation burdens and the probability that guarantees might not be honored ex-post. The model highlights two mechanisms that discipline banks. First, deductibles reduce the effective guarantee, particularly when default rates are moderate, limiting the immediate gains from reclassification. Second, classification costs rise discontinuously when banks challenge a non-discretionary instruction, making blatant rule-bending expensive. Estimation results confirm that implied reclassification costs increase sharply when banks move from discretionary zones into areas where administrator guidance is unequivocal, validating the importance of ex-post oversight as a deterrent to moral hazard.

The structural estimates also clarify why risk shifting is concentrated near classification thresholds. As firms' measured sales approach the boundary between size categories, the marginal cost of justifying reclassification falls, while the marginal benefit of securing a higher guarantee remains substantial. This generates precisely the smooth but asymmetric patterns observed in the reduced-form classification probabilities. Importantly, the model shows that even modest documentation and auditing costs can substantially restrain risk shifting when combined with partial guarantees and deductibles, helping explain why widespread reclassification does not fully undermine the program.

From a policy perspective, the paper delivers a nuanced message. Government credit guarantees do create incentives for banks to shift risk onto the public balance sheet, but the extent of this behavior depends critically on program design. Features such as partial guarantees, deductible structures, multiple sales-based classification criteria, and credible threats of ex-post verification meaningfully limit banks' ability to engage in opportunistic behavior, even in a rapidly deployed, large-scale crisis program. Rather than eliminating discretion altogether—which could severely slow credit delivery—the evidence suggests that

well-designed frictions can preserve the speed and reach of guaranteed lending while keeping moral hazard in check. In this sense, the FOGAPE-COVID program demonstrates that private intermediation under government guarantees need not imply uncontrolled risk transfer, provided that incentives are carefully balanced.

Overall, the paper complements existing evidence on crisis credit by shifting attention from firm selection and default outcomes to the intermediary's strategic response to guarantee design. It shows that banks are neither passive conduits nor unconstrained exploiters of public guarantees. Instead, they respond along predictable margins that policymakers can influence. For future crisis credit programs, the results underscore the value of combining generous coverage with mechanisms that raise the cost of strategic manipulation, thereby expanding credit access while safeguarding public resources.

4.4 Domestic Credit as a Backstop in Sudden Stops

Acosta-Henao et al. (2024) study whether government credit support policies can effectively substitute for international financial markets during sudden stops—episodes of abrupt capital flow reversals that sharply raise the cost of foreign financing. The authors focus on the COVID-19 shock in Chile, which triggered one of the largest sudden stops experienced by emerging markets. Using comprehensive administrative data covering the universe of Chilean firms and exploiting sharp eligibility thresholds in credit support programs, the paper evaluates how government-backed credit lines and loan guarantees altered firms' financing choices, borrowing costs, and exposure to foreign currency debt.

The empirical setting is especially powerful. Chile implemented two large-scale and complementary policies at the onset of the pandemic: a Central Bank credit line facility (FCIC) that provided subsidized liquidity to commercial banks conditional on expanding lending, and the FOGAPE-COVID program, which offered sovereign guarantees on bank loans to firms below an exogenously determined sales cutoff. Crucially, eligibility for FOGAPE-COVID depended on firms' 2019 sales, enabling a clean regression discontinuity design (RDD). Firms just below the cutoff became eligible for guarantees, while otherwise similar firms just above did not, allowing for credible causal identification.

The main empirical result is that government guarantees caused a sizable reallocation of firm financing away from foreign sources and toward domestic credit. Firms eligible for FOGAPE-COVID increased their domestic debt share by about 9–10 percentage points relative to ineligible firms at the threshold. This effect is economically meaningful: treated firms account for roughly 18 percent of Chile's gross output, and the associated increase in

domestic credit reached close to 1 percent of GDP during the initial months of the crisis.

Beyond quantities, the paper shows that prices—the cost of borrowing—play a central role in driving this substitution. In normal times, Chilean firms face a positive uncovered interest parity (UIP) premium: borrowing in domestic currency is more expensive than borrowing in foreign currency, even from domestic banks. Consistent with the broader emerging-market literature, the authors estimate this premium at around 4 percentage points before the pandemic. During the sudden stop, however, this relationship changes dramatically for policy-eligible firms. After the introduction of FOGAPE-COVID, the UIP premium effectively disappears for eligible firms, while it remains positive for ineligible ones. This collapse of the UIP premium is driven primarily by a decline in domestic interest rates on local-currency loans, rather than by changes in foreign-currency borrowing costs.

A critical insight of the paper is that these effects operate through selection at both the firm and bank level. Eligible and ineligible firms often borrow from the same domestic lenders, yet only eligible firms receive cheaper local-currency credit. This indicates that the policy works by altering banks' pricing of risk rather than by reshuffling firms across lenders. In essence, government guarantees reduce the perceived credit risk of lending in domestic currency, loosening banks' risk constraints precisely when international capital dries up.

To rationalize these findings, the paper develops a two-period small open economy model with heterogeneous firms and segmented domestic and foreign credit markets. Firms differ in their access to international collateral, which determines how much they can borrow abroad. Domestic borrowing is subject to a separate collateral constraint that can be relaxed by government guarantees. Financial intermediaries, in turn, exhibit endogenous risk aversion that limits how much Central Bank liquidity is passed through to firms in times of stress. In the model, a sudden stop raises the cost of foreign borrowing and increases domestic interest rates, generating a higher UIP premium—unless policy intervenes.

The model highlights an important complementarity between Central Bank liquidity provision and government loan guarantees. A credit line facility alone expands banks' funding but is insufficient to fully offset higher perceived risk: domestic rates fall only partially and credit remains below pre-shock levels. Loan guarantees alone stimulate firm demand by relaxing collateral constraints, but can push domestic interest rates up by increasing borrowing demand. Only when both policies are deployed jointly does the model replicate the empirical patterns: domestic credit expands, domestic interest rates fall back to (or below) pre-crisis levels, and the UIP premium disappears. Quantitative simulations confirm that this complementarity holds across a broad range of parameter values.

From a broader perspective, the paper makes three key contributions. First, it provides

causal micro-level evidence that government-backed credit guarantees can meaningfully reorient firms' financing toward domestic markets during sudden stops. Second, it identifies the reduction in the relative cost of domestic currency borrowing—not just increased credit volumes—as the central transmission mechanism. Third, it offers a coherent theoretical framework linking heterogeneous firms, financial frictions, and unconventional credit policies, helping bridge macro-finance theory with granular administrative data.

The policy implications are clear and highly relevant for emerging markets facing volatile capital flows. Governments and central banks can, under certain conditions, substitute for disrupted international markets—at least temporarily—by jointly deploying liquidity facilities and credit guarantees. However, neither tool is sufficient in isolation. The effectiveness of intervention hinges on designing policies that simultaneously expand credit supply and reduce lenders' risk aversion. In this sense, the Chilean experience during COVID-19 illustrates that well-coordinated credit support policies can stabilize domestic financing conditions, lower firms' exposure to foreign currency risk, and mitigate the real effects of sudden stops without fully replacing market mechanisms.

5 Combining Lessons for Future Crisis Credit Programs

The evidence from the four evaluations implies that crisis credit works best as a *state-contingent, incentive-compatible package*: central bank liquidity and sovereign guarantees can stabilize funding conditions when markets freeze (Acosta-Henao et al., 2024), but only if program rules preserve bank screening (partial guarantees and deductibles; Chittaro and Sánchez, 2025; Huneeus et al., 2025) and deter strategic intermediary responses (auditable classification and enforcement; de Elejalde and Sánchez, 2025). Because guaranteed loans mainly shift problems through time—bridging liquidity today but raising leverage tomorrow—good design must also specify how the program transitions into the repayment and restructuring phase (Chittaro and Sánchez, 2025).

The four evaluations reviewed above point to a coherent way to "glue" the lessons from FOGAPE-COVID into an integrated policy framework. A crisis credit program is not a single instrument: it is a bundle of (*i*) emergency liquidity provision, (*ii*) risk-sharing through guarantees, (*iii*) bank intermediation and screening, and (*iv*) complementary real-side support that affects firms' financing needs and credit risk. The central design problem is therefore to expand credit access quickly while keeping private intermediaries' incentives aligned with public objectives, and while managing the transition from liquidity support in the acute phase to solvency management in the recovery phase.

Across the four papers, the program can be interpreted as trying to satisfy three objectives subject to two constraints.

Objectives. First, stabilize firm liquidity and avoid inefficient liquidation in the acute shock. Second, sustain credit flows and reduce macro-financial amplification (including sudden-stop pressures and currency-mismatch risks). Third, limit fiscal exposure and contain moral hazard by banks and borrowers.

Constraints. A crisis compresses information and time: the state cannot screen millions of borrowers, and delivery must run through the banking system. In addition, systemic shocks simultaneously increase credit demand (liquidity needs) and worsen borrower quality, so any expansion of credit mechanically tilts portfolios toward higher risk.

Given these objects, the evidence organizes naturally around five policy "levers" that jointly determine outcomes: (1) targeting and eligibility, (2) risk-sharing and pricing, (3) bank incentives and monitoring, (4) coordination with complementary policies, and (5) repayment-phase and exit design. The value of the framework is that it emphasizes complementarities: adjusting one lever in isolation typically creates offsetting responses somewhere else.

Lever 1: targeting is about returns, not only need. The evidence suggests that allocation matters as much as scale. While FOGAPE-COVID was broad and size-based, Chittaro and Sánchez (2025) highlights large heterogeneity in social returns, with young firms delivering particularly high welfare gains per fiscal dollar but receiving lower approval probabilities. This implies a practical retargeting principle: complement size-based rules with administratively observable predictors of high marginal returns (e.g., age, growth, or pre-crisis investment behavior), especially when budgets are fixed. Importantly, such retargeting must be designed in a way that remains auditable and simple enough for rapid deployment.

At the same time, the "do-not-finance" margin is first-order for fiscal risk. Huneeus et al. (2025) shows that excluding recent defaulters and imposing basic creditworthiness screens materially reduces expected losses; relaxing those screens sharply increases portfolio risk. This implies that crisis credit should separate *liquidity insurance* (supporting viable firms hit by a transitory shock) from *solvency transfers* (supporting firms that are non-viable absent restructuring). If policymakers want the latter, the instrument should be explicit (grants, equity-like injections, or structured restructurings) rather than hidden inside guaranteed debt.

Lever 2: price and quantity tools must be calibrated together. The sudden-stop evidence highlights that credit programs can stabilize not just quantities but also prices. Acosta-Henao et al. (2024) shows that guarantees and central bank liquidity jointly compressed

domestic borrowing costs for eligible firms and induced substitution away from foreign debt. The key lesson is that guarantees alone relax collateral constraints and can raise loan demand, potentially pushing rates up; liquidity facilities alone relax bank funding constraints but may not translate into cheaper credit under heightened risk aversion. When combined, the two interventions can lower domestic-currency rates and stabilize financing conditions.

This complementarity clarifies why design details such as interest rate caps, loan-size limits, and maturity restrictions are not cosmetic. In Huneeus et al. (2025), interest-rate caps and borrowing limits act as guardrails that prevent the program from becoming a vehicle for high-risk, high-rate lending. In integrated terms, caps help control adverse selection on the pricing margin, while quantity limits help control exposure on the balance-sheet margin.

Lever 3: preserve "skin in the game" and anticipate intermediary gaming. All four papers underscore that banks are active agents, not passive conduits. Partial guarantees and deductibles preserve screening incentives and reduce borrower moral hazard by ensuring banks internalize some losses (Chittaro and Sánchez, 2025; Huneeus et al., 2025). In a crisis setting, this is especially valuable because banks can use relationship information the state does not observe.

But incentive alignment is fragile when rules create arbitrage opportunities. de Elejalde and Sánchez (2025) shows that differential guarantee rates across size categories can induce strategic reclassification, particularly within existing bank-firm relationships and near thresholds. The integrated lesson is a "mechanism-design" one: whenever guarantee generosity varies discontinuously with an observable characteristic, the program should pair the generosity with (i) standardized first-loss terms (deductibles), (ii) simple, redundant classification criteria, and (iii) credible ex-post audit and enforcement. These features need not eliminate discretion—which can slow delivery—but can raise the marginal cost of manipulation enough to keep leakage contained.

Lever 4: coordinate credit with real-side support to reduce risk and improve targeting. The interaction between credit and labor market support is central for interpreting program outcomes. Huneeus et al. (2025) shows that employment protection reduced firms' financing needs and changed banks' screening, partly because take-up signaled real-side distress and scaling-down. This yields a broader design principle: when the shock is driven by policy restrictions (lockdowns) or sectoral shutdowns, pairing credit with targeted wage support can both reduce the amount of debt needed and improve borrower selection, thereby reducing expected losses for a given credit expansion.

More generally, a crisis toolkit should be designed as a portfolio: grants/wage support for

fixed-cost relief; guaranteed credit for working-capital liquidity; and restructuring tools for solvency cases. Trying to make guaranteed credit do all three jobs leads to debt overhang and delayed default dynamics.

Lever 5: design the transition from liquidity to solvency management. A central integrated message is that the success criteria change over time. The acute-phase metric is speed and take-up; the recovery-phase metric is sustainable debt service and efficient reallocation. Chittaro and Sánchez (2025) shows that FOGAPE-COVID largely postponed defaults: default risk fell early but converged later, consistent with back-loaded repayment schedules and debt accumulation. This implies that crisis credit programs should embed "phase contingent" features: for example, automatic maturity extensions or refinancing windows tied to sectoral recovery, early-warning triggers based on debt-service burdens, and pre-specified restructuring pathways when repayment becomes infeasible. Importantly, such features should be rule-based to limit forbearance that can morph into opaque subsidies.

Putting it together: a practical checklist for future programs. The integrated framework can be summarized as follows. Effective crisis credit combines (i) targeted access to subsidized liquidity (often through central bank facilities), (ii) partial, deductible-backed guarantees that preserve screening, and (iii) guardrails (caps and limits) that prevent a shift toward high-risk lending. Programs should anticipate and deter intermediary gaming when rules create discontinuities in generosity, and should coordinate with real-side support to reduce financing needs and improve borrower selection. Finally, because guaranteed debt is a liquidity bridge rather than a solvency cure, the program should specify ex-ante how it exits or transforms in the recovery phase—through refinancing, extension, or restructuring mechanisms—so that the policy does not simply shift the crisis from 2020 liquidity to 2022–2023 solvency.

In this sense, the four papers collectively imply that "more credit" is not the right organizing principle. The right organizing principle is *state-contingent, incentive-compatible intermediation*: use the banking system's information and delivery capacity, but discipline it with partial risk retention, simple auditable rules, and complementary instruments that reduce the need to lever firms precisely when uncertainty is highest.

6 Conclusions

The evaluation of Chile's FOGAPE-COVID program offers valuable insights into the design and effectiveness of government credit guarantees during systemic crises. The program

successfully provided liquidity to firms during the acute phase of the COVID-19 pandemic, mitigating immediate default risks and sustaining credit flows. However, the long-term evidence indicates that while the program postponed defaults, it did not prevent them, highlighting the importance of considering repayment structures and post-crisis solvency in program design. The partial guarantee structure preserved banks' screening incentives, reducing moral hazard and ensuring a more efficient allocation of credit. Moreover, the program's design features—such as interest rate caps, deductibles, and eligibility criteria—played crucial roles in containing aggregate risk and fiscal exposure. The studies reviewed also underscore the significance of intermediary behavior, particularly banks' responses to guarantee incentives, which can lead to risk-shifting practices that need to be managed through careful program design and oversight.

Overall, the Chilean experience with FOGAPE-COVID provides a rich case study for policymakers worldwide. It demonstrates that well-designed credit guarantee programs can effectively support firms during crises while balancing fiscal prudence and market discipline. Future iterations of such programs should consider incorporating age-based targeting to enhance cost-effectiveness, implementing repayment-phase safeguards to manage solvency risks, and maintaining mechanisms to deter opportunistic behavior by financial intermediaries. As global economies continue to face uncertainties and potential shocks, the lessons from FOGAPE-COVID will be instrumental in shaping resilient and responsive credit support frameworks.

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