Government guarantee programmes for bank lending to firms: Lessons for future policymakers

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Our own views, not those of Norges Bank, Federal Reserve System, Reserve Bank of India, Banque de France, Eurosystem, or European Commission

Lessons for future policymakers

- Our work: identify key issues that might be associated with government guarantees of bank loans
  - Prepared for the next time

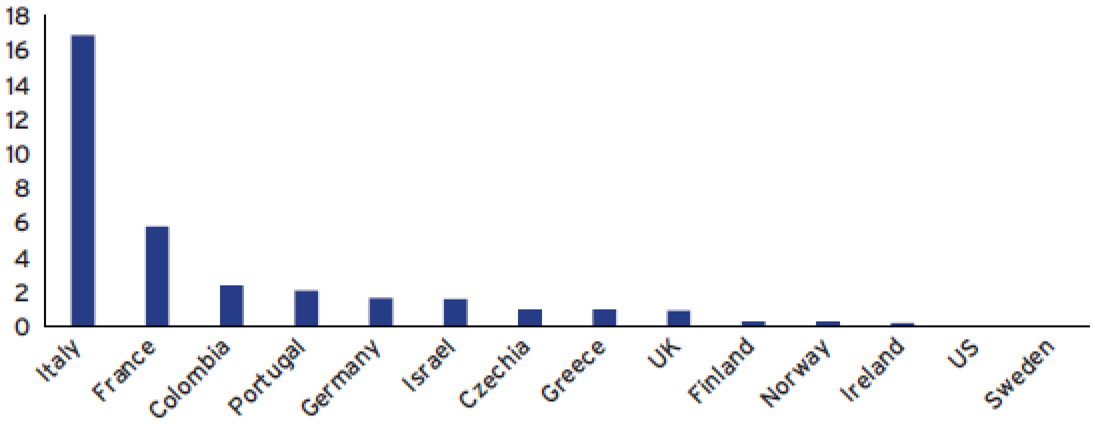
1. Literature: what the research community has found
2. IBRN Survey: summer 2023, 17 central banks participating in the IBRN
   - Contours of programs, lesson learned, directions not explored

The survey

- 15 out of 17 programmes had explicit or implicit purpose of supporting SMEs (more vulnerable to liquidity risk during Covid-19 shock)
- Half of the country responses: government limited interest rates charged on guaranteed loans to prevent banks from making profits w/out taking risks

Large-scale government interventions

Figure 1 Programme size (% of GDP)



Note: Programme size is defined as the total amount of guaranteed loans over the entire programmw period. GDP is that of 2019.

Source: IBRN survey data, 2023.

Median scale of government guarantees to bank lending: 1% of GDP
Italy and France particularly exposed to pandemics: 16.9% and 5.8% of their GDP
(first countries to be affected both chronologically and in terms of number of fatalities)

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Risk-taking and moral hazard

- Four common features in design of programmes
  - Generally constrained excessive risk-taking by banks

1. Limits on amounts that could be borrowed
2. Restrictions on the destination of the borrowed funds
3. Restrictions on the type, riskiness, and size of firms that could participate
4. Only partial government coverage of the loans (in most cases gvt did not guarantee 100% of loan principal)

Risk-taking and moral hazard

- Four common features in design of programmes

  1. Limits on amounts that could be borrowed: all sample countries

     - ½ countries: loan limits computed as % of 2019 firms sales, revenue, or payroll expenses
     - ½ countries: fixed thresholds for all firms or category of firm (SMEs vs large)
     - Two aims:

       1. Guarantee loans of limited amounts to help firms overcome temporary liquidity issues
       2. Avoid excessive borrowing → risk to firms, banks, financial stability

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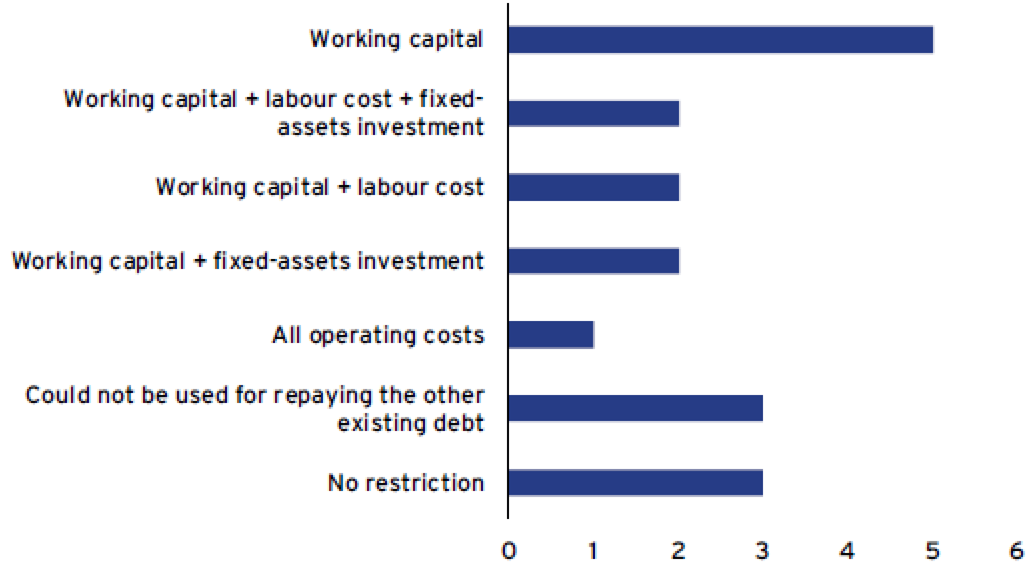
Restrictions on destination of funds

Figure 2 Restrictions on the destination of the borrowed funds



Source: IBRN survey on guaranteed bank lending to firms.

14/17 countries: restrictions on use of borrowed funds
12/17: financing of working capital or operating costs
Particularly insightful design feature in Finland, Sweden & USA: explicitly prevent PGL from being used to repay existing credit
Partial substitution actually occurred where restriction not introduced.

Risk-taking and moral hazard

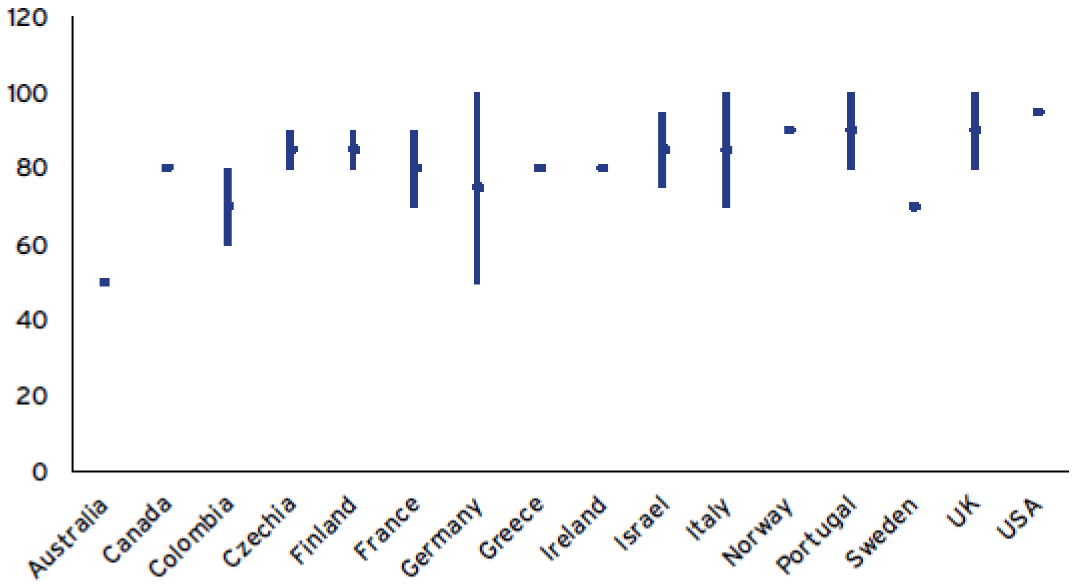
- Four common features in design of programmes

  3. Restrictions on the type, riskiness, and size of firms that could participate

     - 11/17 countries
     - Most cases: credit quality (credit ratings)
     - Two countries: No NPLs as of December 2019
     - Where no explicit restrictions on borrower quality: responsibility delegated to banks
     - About 80% of economies surveyed did not require credit history for borrows to obtain GLs

Government coverage

Figure 3 Maximum coverage by country, depending on type and size of firm



Source: IBRN survey on government guarantee programmes for bank lending to firms.

Max percentage of loan principal guaranteed
Higher coverage ratios may reduce banks' skin-in-the-game increasing risk-taking behavior
8/16 countries: different % of loan principal depending on size (higher coverage: smaller firm)
DE, IT, PT, UK: coverage could be as high as 100%. Full coverage limited to special cases of very small firms and/or very small loans

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Firms profiles

Table 1 Descriptive statistics on firms obtaining public-guaranteed loans

Firm variable	Higher than average	Lower than average	No difference	Countries in sample
Riskiness	45%	18%	36%	11
Size	7%	79%	14%	14
Productivity	9%	9%	82%	11
Profitability	33%	22%	44%	9
Liquidity	60%	0%	40%	10

Source: IBRN Survey on government guarantee programmes for bank lending to firms.

Diversity of features: diversity in the distribution of loans

- Consistent with programme objective: supporting primarily SMEs
- Productivity and profitability indistinguishable from those of other firms in most cases
- Riskier than average in 5 out of 11 countries (risk calculated pre-crisis)
- Problematic if riskier banks → riskier firms

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Bank profiles

Table 2 Descriptive statistics on banks issuing public-guaranteed loans

Bank variable	Higher than average	Lower than average	No difference	Countries in sample
Riskiness	22%	11%	67%	9
Size	56%	0%	44%	9
Capitalisation	13%	25%	63%	8
Level of NPLs	0%	0%	100%	9
Liquidity	25%	0%	75%	8

Source: IBRN Survey on government guarantee programmes for bank lending to firms

1. Large size
2. In majority of countries, on average banks issuing GLs not different in terms of:
   - Riskiness
   - Capitalisation
   - NPL ratio
   - Liquidity ratio

Risk-taking and moral hazard

- Because of government guarantees, banks may have had less incentive to assess borrower creditworthiness (Holmstrom Tirole 1997)
- Excessive credit risks by lending to riskier borrowers & shifting risks to the public through loan guarantees scheme (Boyd Hakened 2014)
- Moral hazard problem more severe for riskier banks.
- Our survey: no evidence of extensive moral hazard in respondent countries.
- In ex-ante terms, loan borrowers & lenders not necessarily riskier
- In part due to specific features of the program

Caveats

1. Uneven representation of country respondents, across questions and within specific groups of questions:

    - Responses predominantly from advanced economies relative to total population of countries surveyed

    - Implementation of measures required significant fiscal capacity for implementation of programmes and early monitoring mechanisms: robust data production by fiscal/monetary authorities + monitoring system for loans

2. Difficult to estimate default rates due to successive support programmes (war in Ukraine + inflation):

    - Potential defaults did not materialize, more than half of the loans remained outstanding

Lessons from analytical studies

- We reviewed research on government guarantee programmes on bank lending to businesses during Covid-19 pandemics

  1. Previously available research

  2. Less widely available country-specific research from survey respondents

- Two dimensions:

  1. Effectiveness

  2. Bank risk taking (moral hazard)

Effectiveness

- In general highly effective:
  - US, Main Street programme, > 1,800 loans to businesses. Borrowers affected by pandemics; lenders would have not made these loans otherwise (Minoiu Zarutskie Zlate 2021, Brauning Paligorova 2021, Arsenau Fillat Mahar Morgan Van den Heuvel 2022).
  - Italy: significant number of firms would have experienced liquidity problems (Schivardi Romano 2020)
  - Norway: support schemes helped sectors affected by crisis (Hjelset Solheim Vatne 2021)
  - Portugal: loans went to firms in most affected sectors (Mateus Neugebauer 2022)
  - UK: firms in most affected sectors more likely to borrow (Fatouh Giansante Ongena 2021)

Risk-taking and moral hazard

- Four largest euro-area economies: loans to small but creditworthy firms, from large, liquid, well-capitalised banks (Altavilla Ellul Pagano Polo Vlassopoulos 2021)
- Norway: less support to initially weak firms (Hjelset Solheim Vatne 2021)
- Portugal: scheme primarily supported firms with low credit risk. Higher-risk firms benefited more from public moratoria (Mateus Neugbauer 2022)
- Italy similar pattern: financially sound firms PGLs; financially vulnerable moratoria (De Mitri De Socio Nigro Pastorelli 2021)
- France: safer firms received larger amounts of PGLs. Weaker banks issued higher amounts of PGLs taking advantage of the program to improve their financial positions (Nicolas Ungaro Vansteenberghe 2022)

Conclusions

1. Effectiveness: schemes played a crucial role in maintaining credit intermediation to firms at a time of unprecedented uncertainty
2. Importance of programme features that mitigate excessive risk-taking from banks: restriction on firms, on destination of borrowed funds, caps on borrowing amounts, partial government coverage
3. Need to proactively invest in frameworks and monitoring mechanisms before crises occur to ensure effectiveness and reduce fiscal cost
4. Availability of high-quality data: critical role in filling existing knowledge gaps

Thank you