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Empirical assessment of EBRD’s COVID-19 response package bolstered recipient bank’s lending activities by providing essential liquidity support

The COVID-19 crisis was expected to adversely affect bank lending and other performance-related outcomes, with negative spillovers to the global economy. In response to the uncertainty presented by the pandemic, the European Bank for Reconstruction and Development (EBRD) implemented a response package called “Solidarity Package” in March 2020, which provided emergency liquidity support to EBRD clients operating in the private sector. The primary objective of this program was to strengthen the resilience of banks, firms, and countries to the COVID-19 crisis by mitigating adverse effects of the pandemic.

The Independent Evaluation Department of EBRD (IEvD) commissioned 3ie to conduct an impact evaluation, aiming to assess the tangible outcomes of the Solidarity Package in the Bank’s region. The scope of this empirical assessment focused on the emergency liquidity support of the Solidarity Package, Resilience Framework (RF), and its impact on lending and other performance-related outcomes. The primary research question was the following:

What was the impact of EBRD’s Tier 1 liquidity support, Resilience Framework, on bank lending and performance-related outcomes during the COVID-19 pandemic?

A quasi-experimental method – controlled interrupted time series – was used for this assessment. The analysis employed data covering period 2017–2022 for 17 EBRD banks that received the emergency liquidity support, as well as 102 control banks, both EBRD clients and non-clients.

Highlights

- The EBRD’s Covid-19 emergency liquidity support programme increased lending over time for EBRD’s client banks that received the support compared to those that did not according to the empirical assessment
- Bank performance (as measured through return on assets, return on equity, non-performing loans ratio, liquidity coverage ratio, and capital adequacy ratio) did not change over time as a result of the EBRD’s Covid-19 response programme.
- This impact evaluation demonstrates that controlled interrupted time series can be a viable method for conducting impact evaluations in the context of banks operating in the private sector.
- Future analysis should be performed on a larger scale, ideally with a greater number of banks in the sample with complete data, to improve the confidence of these results.



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Main findings

Banks that received the emergency liquidity support experienced a significant increase in bank lending. The EBRD's Covid-19 support under the Solidarity Package increased recipient bank's lending by 1.6B EUR per year as compared to non-Tier 1 EBRD banks and non-EBRD banks. This is a sizeable increase in lending of 8% compared to the average baseline lending for Tier 1 banks in the sample.

The result is a **conditional average treatment effect**, meaning that it may not be generalizable to EBRD's full roster of bank clients or the banking sector more broadly, given the small size of the analytic sample of banks (i.e., those that were subject to EBRD intervention and had sufficient outcome data).

- Nevertheless, **this result is consistent with the intent and expectation of the support, and**

aligns with findings of past studies examining the effect of similar liquidity support measures (e.g., Paravisini 2008; Gibson et al. 2020; Minoiu et al. 2021). Our findings contribute to this literature by providing another example of emergency liquidity support that appears to have increased lending in recipient banks.

There was no statistically significant impact on bank performance outcomes (return on assets, return on equity, non-performing loans ratio, liquidity coverage ratio, and capital adequacy ratio) over time in the treatment group relative to the control group.

- This could be due to a variety of factors, including limitations related to data availability resulting in a small sample size. It is also possible that the emergency liquidity support had no effect on

these measures, perhaps because they are too causally distal from the intervention. Some of the changes in these outcomes may actually flow through increased lending as an intermediate step, and therefore may only appear later and/or too weakly to be detectable. There are also a variety of tradeoffs between some of these measures (e.g., a decrease in the capital adequacy ratio could occur with an increase in lending if the alternative to lending is setting aside more funds), some of which are controlled for in the analysis.

We conducted additional sensitivity checks, which did not change our primary findings. For eight of the ten sensitivity checks, the substantive result did not change. Our results lost statistical significance for two of the checks, likely due to a reduction in the analytical sample size and statistical power.

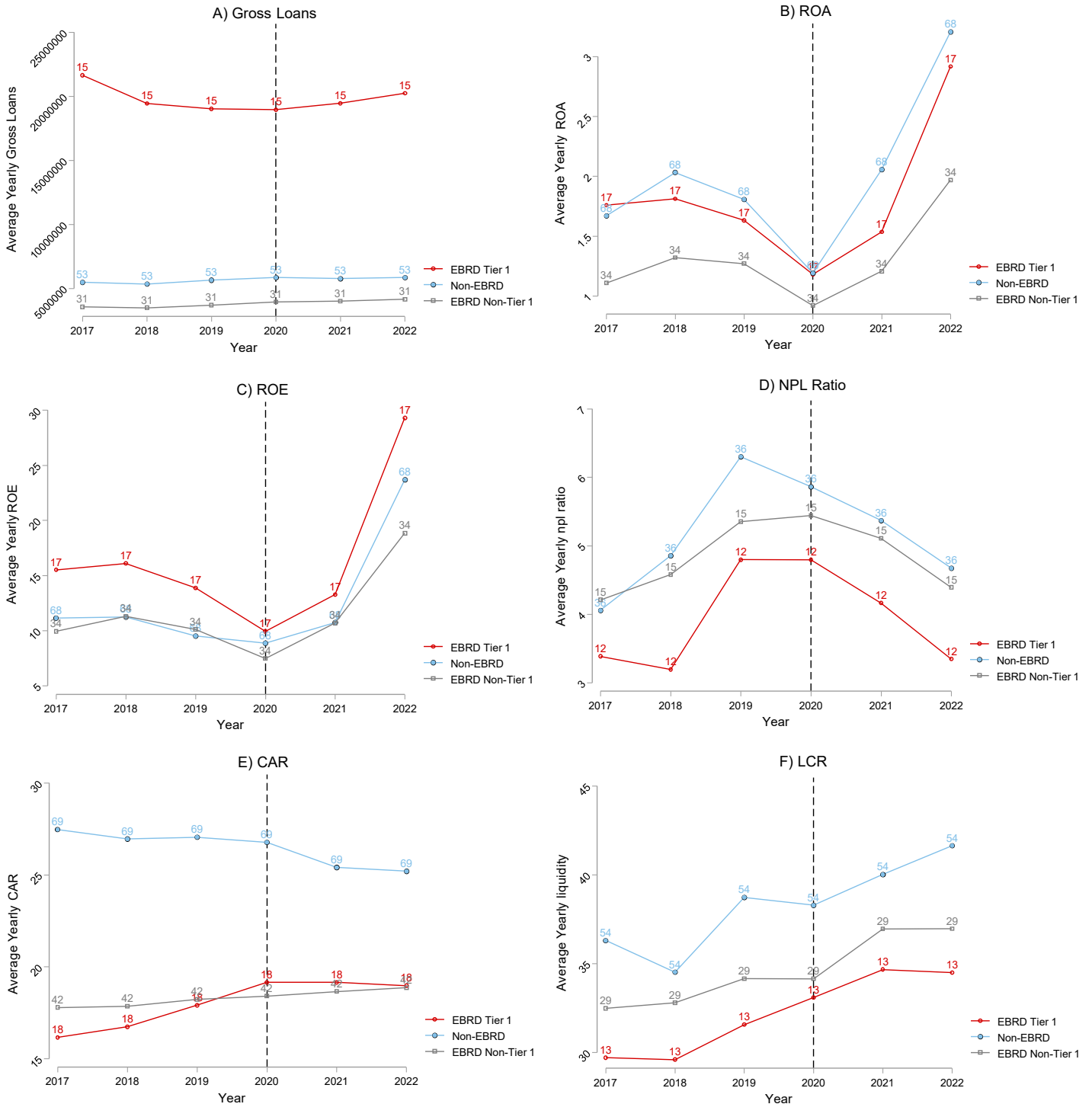
Conclusions

Overall, these empirical analyses identified a significant impact on lending for banks that benefitted from the EBRD's Covid-19 emergency liquidity support compared to the comparison group. No significant impact is found on other tested performance-related outcome variables. Though this cannot be

generalized beyond the analytic sample, this finding does indicate that the EBRD's emergency liquidity support contributed to an increase in lending for EBRD's clients. This finding is in line with the existing literature on the effectiveness of the liquidity support in the banking sector, which has found similar positive effects on lending behavior.

This impact evaluation demonstrates that controlled interrupted time series is a viable method for the banking sector. Future work could be conducted to assess the impact of emergency liquidity support on other bank performance outcomes if sufficient data become available.

Figures: EBRD Trends in Outcomes



Notes: These graphs illustrate the trends over time for each outcome variable for banks that received the funding compared to those that did not. The red line depicts the value for EBRD banks that received the funding (treated banks), while the blue line is Non-EBRD banks, and the grey line is EBRD banks that did not receive the funding (control banks). We account for the initial differences between the groups (the gap between the lines) in our analysis.



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About this brief

This brief was based on an impact evaluation conducted in 2022–2023 by Fiona Kastel, Sridevi Prasad, Natalia Kryg, Sebastian Martinez, and Douglas Glandon. This impact evaluation has been commissioned by the Independent Evaluation Department (IEvD) of the EBRD. The contents of this publication are the sole responsibility of the authors and do not necessarily reflect the views of the EBRD.

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