SUERF
The European Money and Finance Forum

SUERF Policy Brief
No 761, December 2023

Did Europe break the doom loop of sovereign debt?*

By Selva Bahar Baziki (Bloomberg), María J Nieto (Bank of Spain), and Rima Turk-Ariss (International Monetary Fund)

Keywords: Banks, euro sovereign crisis, EU.
JEL codes: G01, G21, G28, G38.

This Policy Brief summarizes our research on the sovereign-bank nexus in the context of European banks for the decade beginning with the Global Financial Crisis focusing on the composition effects of sovereign portfolio holdings on the risk profile of banks. As predicted, we find that bank risk is higher a) when the bank is domiciled in a country with high sovereign risk, and b) when sovereign portfolio holdings include a larger share of securities issued by crisis sovereigns. However, the differential risk impact of carrying a high share of government debt issued by crisis sovereigns is statistically lower for banks located in a high-risk country compared with those headquartered in a low-risk country. This finding may suggest that past Euro Area policies (e.g., reforms of the institutional framework such as the Banking Union) were successful in mitigating the risk of high-risk sovereigns and stabilizing bank risk.

*This Policy Brief is based on Selva Bahar Baziki, María J. Nieto, Rima Turk-Ariss (2023), Sovereign portfolio composition and bank risk: The case of European banks, Journal of Financial Stability, Volume 65, 2023, 101108. The views expressed are those of the authors and do not necessarily represent those of Bloomberg, the International Monetary Fund, the Banco de España or the Eurosystem.

Introduction and motivation

The 2008 Global Financial Crisis (GFC) brought risks from sovereign-bank linkages to the forefront, particularly in the European Union where banks buy large quantities of sovereign debt as part of their securities portfolio. Now, more than a decade later, European banks still carry a significant amount of sovereign debt on their balance sheets, raising concerns about the implications on bank risk.

Our research, summarized in this Policy Brief, belongs to the literature on the management of the sovereign-bank nexus. Most research previously analyzed the determinants of sovereign portfolio holdings of banks, whereas others focused on their size effects. Our research contributes to the latter strand of literature by presenting evidence on the link between the composition of sovereign portfolios and banks' risk profile.[1] We are particularly interested in how the choice of sovereign portfolios may affect bank risk, taking into consideration the domiciliation of the bank.

Our methods differ from previous studies with respect to the sample and period coverage, as well as the measures of risk considered. First, we use a large sample of banks incorporated in the euro area and the non-euro European Union (EU) countries plus Norway and Iceland, providing a more comprehensive picture about the importance of sovereign portfolio composition on bank risk, compared with previous studies. Second, the analysis period (2009-2018) covers the marked return of distressed European sovereigns to the market, in contrast to previous studies that are generally limited to the GFC period (mid-2007 to 2009).

Further, we use accounting measures of overall bank risk (the standard deviation of return on average assets (ROAA) and the Z- Score) instead of market measures of risk because private banks make up the majority of banks in the EU (in our sample, less than 3 percent of banks are publicly listed). This choice of risk measures allows us to capture a larger and more representative sample of banks compared with other related studies that use market measures of risk. Another advantage is that, during stress episodes, these indicators are less volatile and noisy than market measures of risk, as the latter might reflect information that is due to speculation by agents rather than changes in bank risk *per se*. Hence, our analysis complements other research that employs market-based indicators of bank risk.

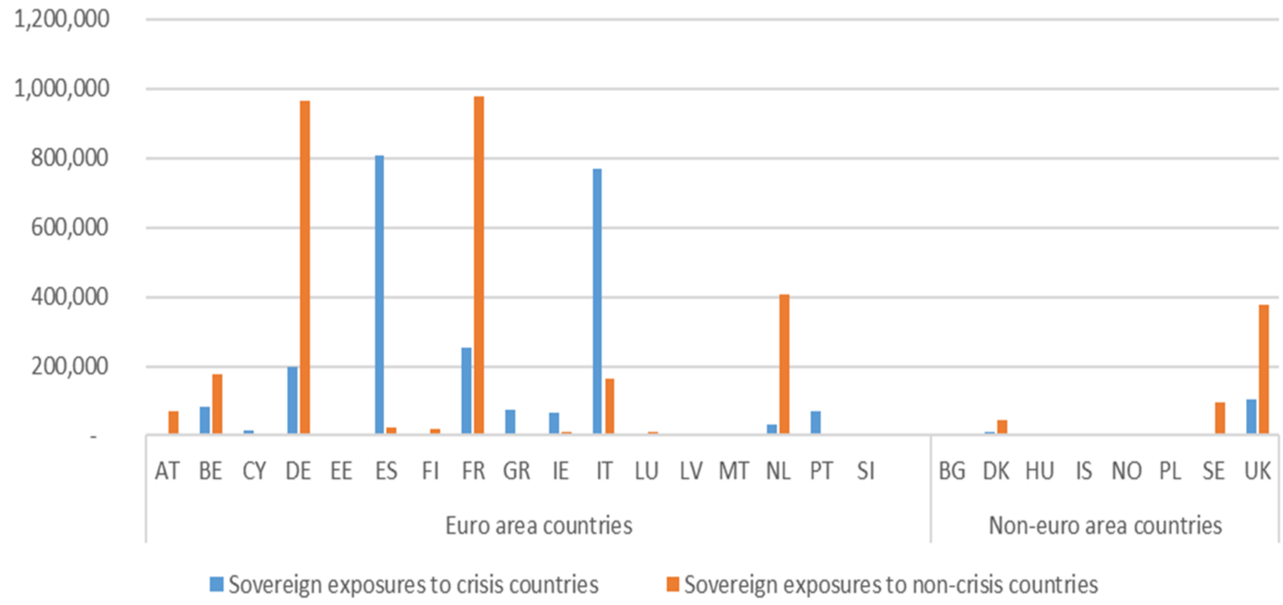
The main conclusions of our research

Using sovereign exposure data from the European Banking Authority for a large sample of 156 European banks from the EU plus Norway and Iceland over the 2009-2018 period, we find the following:

- Banks that are domiciled in countries with higher sovereign risk – i.e. those that have CDS above the median of the sample for a particular year - are riskier than those domiciled in low-risk countries. This finding lends support to the balance sheet channel for the sovereign-bank nexus.
- Also, banks carrying a higher share of sovereigns of crisis countries in their securities portfolio exhibit higher risk than other banks with lower relative exposure to such sovereigns. Our definition of crisis countries includes Cyprus, Greece, Ireland, Italy, Malta, Portugal and Spain, as the ratings of those sovereigns were downgraded below AA after the onset of the sovereign debt crisis (2009). Figure 1 shows the accumulated holdings of euro area sovereign exposures to crisis and non-crisis countries by bank domicile (mln euros).

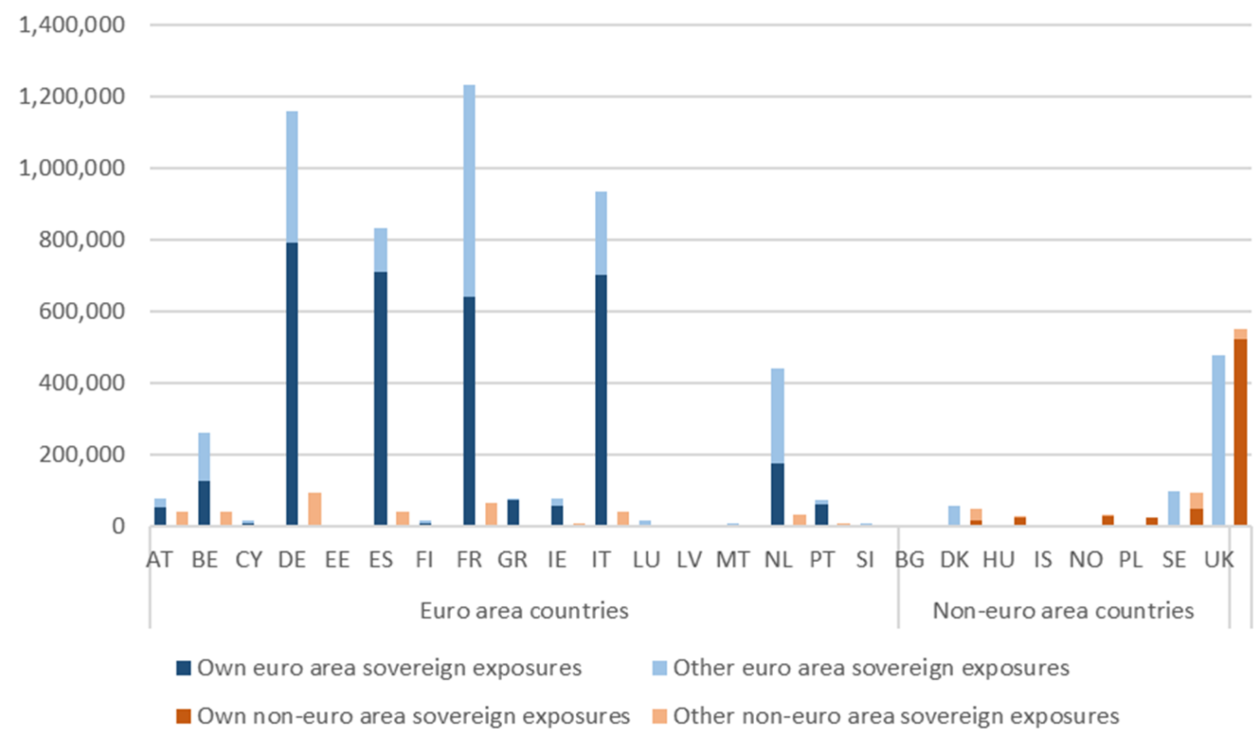
[1] Baziki, Nieto and Turk-Ariss (2023).

Figure 1



- However, we find a statistically lower differential risk impact of carrying a high share of crisis sovereigns if the bank is located in a high sovereign risk country compared with a bank that is headquartered in a low-risk country. This finding may actually suggest that the ECB and, more broadly, euro area policy makers (e.g., through reforms of the institutional framework such as the Banking Union) were successful in mitigating the risk of high-risk sovereigns in the past and stabilizing bank risk. With the benefit of hindsight, no country exited the euro area or defaulted on its debt since the GFC.
- Banks whose sovereign portfolios have more concentrations in favor of their national sovereign are not riskier than banks with less exposure to their own sovereign. This finding seems to suggest that banks increased their holdings of domestic sovereign debt to hedge against the risk of a break-up in the European Monetary Union by reducing currency mismatches in assets and liabilities. Figure 2 shows the accumulated holdings of banks' exposure to sovereigns by issuer type and bank domicile (mln euros).

Figure 2



- Banks that received government capital injections have higher risk than those that did not benefit from government support. However, when those banks hold a higher proportion of crisis sovereigns, their *ex-post* risk is lower. These results may indicate that regulatory arbitrage motives at these banks were more important than for banks that did not receive capital injections by the government.

Our measures of bank risk may underestimate bank risk (variability of ROAA) because EU banks hold the largest proportion of their sovereign portfolios in the 'Available For Sale' category, where revaluations of the sovereign portfolio are not reflected in banks' P&L.

Reference

Selva Bahar Baziki, María J. Nieto, Rima Turk-Ariss (2023), *Sovereign portfolio composition and bank risk: The case of European banks*, Journal of Financial Stability, Volume 65, 2023, 101108. https://doi.org/10.1016/j.jfs.2023.101108.

About the authors

Selva Bahar Baziki *is the Turkey and Sweden economist for Bloomberg Economics. Previously, Baziki was the Director of Macro Financial Analysis at the Central Bank of the Republic of Turkey and worked at the Federal Reserve Bank of Boston, USA and the Research Institute of Industrial Economics, Sweden. Baziki holds a Ph.D. in Economics from Uppsala University, Sweden, a B.A. in Economics from Bryn Mawr College, USA and is a graduate of Robert College, Istanbul. Her research focuses on the interaction of the macro economy with empirical banking, international finance, and trade.*

María J. Nieto *is an Advisor at the Bank of Spain. She is author of numerous peer-reviewed articles (JBF, JFS, EFM among others). Her research interests are in the field of international financial stability. Dr. Nieto has cooperated as advisor with the International Monetary Fund and the Federal Reserve Bank of Atlanta for over 10 years and she is a member of the Advisory Panel of the Central Banking Training Advisory Board (UK), Member of the Academic Advisory Panel of the Institute of International Monetary Economics (UK) and Member of the Associate Researchers Group of the European Banking Institute (Germany).*

Rima Turk *is a senior economist at the IMF who worked on advanced countries (Sweden and Denmark), emerging economies (Nigeria), frontier markets (Tunisia), and low-income countries (Moldova, Comoros). She was also a lead contributor to the IMF's strategy on fragile states and main reviewer for several IMF arrangements. Prior to joining the IMF, Ms. Turk was a tenured professor in finance and a regular visiting scholar to the Bank of Finland and the Université de Strasbourg. She has published extensively in top-tier peer-refereed journals, including on financial markets and stability, the sovereign-bank nexus, corporate debt limits, and private sector investment.*

SUERF Publications

Find more **SUERF Policy Briefs** and **Policy Notes** at www.suerf.org/policynotes

SUERF
The European Money and Finance Forum

SUERF is a network association of central bankers and regulators, academics, and practitioners in the financial sector. The focus of the association is on the analysis, discussion and understanding of financial markets and institutions, the monetary economy, the conduct of regulation, supervision and monetary policy.

SUERF's events and publications provide a unique European network for the analysis and discussion of these and related issues.

SUERF Policy Briefs (SPBs) serve to promote SUERF Members' economic views and research findings as well as economic policy-oriented analyses. They address topical issues and propose solutions to current economic and financial challenges. SPBs serve to increase the international visibility of SUERF Members' analyses and research.

The views expressed are those of the author(s) and not necessarily those of the institution(s) the author(s) is/are affiliated with.

SUERF Secretariat
c/o OeNB
Otto-Wagner-Platz 3
A-1090 Vienna, Austria
Phone: +43-1-40420-7206
www.suerf.org • suerf@oenb.at