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Banks and Sovereign Debt in the Euro Area

A Comparative Analysis of the 2010s Debt Crisis and the Covid-19 Pandemic

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Abstract

This dissertation investigates why the euro area did not experience a sovereign debt crisis during the Covid-19 pandemic, despite macro-financial conditions that closely resembled those of the 2010s crisis. At the centre of both episodes lies the sovereign-bank nexus, a self-reinforcing mechanism through which financial risk circulates between governments and domestic banking systems. While this mechanism transformed localised fiscal problems into systemic instability in the 2010s, no comparable crisis emerged in 2020, even though banks sharply increased their holdings of sovereign debt.

This paradox motivates the central research question. To address it, the dissertation adopts a mixed-method approach. Quantitatively, it shows that banks' sovereign exposures in the 2020s were comparable to levels observed during the earlier crisis. Qualitatively, it employs process tracing to test three hypotheses: (1) whether post-crisis institutional reforms in the EMU's architecture weakened the sovereign-bank feedback loop; (2) whether policy learning from the failures of the 2010s enabled faster and more coordinated responses in 2020; and (3) whether the exogenous and symmetric nature of the Covid-19 shock shaped market perceptions and limited contagion.
The findings suggest that although institutional reforms enhanced supervisory capacity, they did not dismantle the structural interdependence of banks and sovereigns. Instead, the euro area's resilience in 2020 is best explained by the combination of rapid, solidarity-based policy responses and the framing of the pandemic as an external shock, which reassured markets and contained instability.

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List of Abbreviations

BIS	Bank for International Settlements
CDS	Credit Default Swaps
CEBS	Committee of European Banking Supervisors
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
CESR	Committee of European Securities Regulators
CET1	Common Equity Tier 1
DGS	Deposit Guarantee Schemes
EBA	European Banking Authority
ECB	European Central Bank
EDIS	European Deposit Insurance Scheme
EFSF	European Financial Stability Facility
EFSM	European Financial Stability Mechanism
EIB	European Investment Bank
EIOPA	European Insurance and Occupational Pensions Authority
EMU	European Monetary Union
ESFS	European System of Financial Supervision
ESMA	European Securities and Market Authority
ESRB	European Systemic Risk Board
GDP	Gross Domestic Product
HQLA	High-Quality Liquid Assets
IMF	International Monetary Fund
LTRO	Long-Term Refinancing Operation
MFF	Multiannual Financial Framework
MIP	Microeconomic Imbalance Procedure
NCAs	National Competent Authorities
NGEU	Next Generation EU
NRAs	National Resolution Authorities
OECD	Organisation for Economic Cooperation and Development
PEPP	Pandemic Emergency Purchase Programme
SGP	Stability and Growth Pact
SRB	Single Resolution Board
SREP	Supervisory Review and Evaluation Process
SRM	Single Resolution Mechanism

SSM	Single Supervisory Mechanism
SURE	Support to mitigate Unemployment Risks in an Emergency
WHO	World Health Organisation

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Introduction

In January 2009, European policymakers marked the tenth anniversary of the euro's introduction, defining the single currency project as an "…unquestionable success..." and "...a rock of macroeconomic stability..." (Juncker and Pottering, 2009). Yet, within months, the euro area faced a crisis that came close to breaking up the monetary union and that, for the first time, clearly exposed the structural weaknesses of the EMU. The European sovereign debt crisis revealed, for the first time, the structural weaknesses of the euro area's institutional architecture and the fragility of its financial integration.

At the heart of this fragility lays a profound interdependence between sovereign states and their banking systems, a relationship usually referred to as the sovereign-bank nexus or 'diabolic doom-loop' (Brunnermeier et al. 2011, 2016; Dell'Ariccia et al., 2018). This mechanism describes the self-reinforcing dynamic whereby sovereign fragility undermines banks holding large amounts of government debt, and banking fragility in turn erodes sovereign creditworthiness. Operating through multiple transmission channels, the nexus allows financial risk to flow in both directions between the state and the banking system.

During the 2009-2013 sovereign debt crisis, this mechanism played a central role by transforming localised fiscal vulnerabilities into systemic financial instability across the euro area, culminating in the most severe economic crisis the Eurozone has experienced to date (Brunnermeier, 2016).

In the aftermath of the crisis, sovereign-bank interlinkages gradually declined in many euro-area countries, reducing the risk of intertwined crisis. This trend was temporarily reversed in early 2020. The Covid-19 pandemic prompted governments to issue large volumes of debt to finance emergency fiscal measures, much of which was absorbed by domestic banks (Heike, 2024). For several months, Europe appeared on the brink of a "Eurozone crisis 2.0", with public debt ratio soared, economic output collapsed and banks increasing their sovereign exposure. This specific panorama revived concerns about a sequel of the doom loop in Europe. Yet, despite the striking similarities to the conditions of early 2010s, the euro area avoided a second sovereign debt crisis:

1. Hypothesis 1: Institutional reforms and structural change.
   Did post-crisis reforms in the EMU's fiscal and banking architecture weaken the feedback loop between banks and sovereigns?
2. Hypothesis 2: Policy learning and shifts in policymakers' attitudes.
   Did the failures of delayed and fragmented responses in the 2020s lead to faster, coordinated and solidarity-based measures in 2020, thereby avoiding a second sovereign debt crisis?

3. Hypothesis 3: Market perceptions and the nature of the shock.
   Did the framing of the pandemic as an exogenous and symmetric crisis alter market participants' behaviour, preventing panic-driven contagion?

This dissertation has been structured in five main sections. The first chapter offers an overview of the sovereign-bank nexus, outlining its transmission channels and examining its evolution from the European sovereign debt crisis to the Covid-19 pandemic. Particular attention is devoted to the persistence of banks' sovereign exposures, illustrated through empirical data. The second chapter situates the dissertation within the broader academic debates on EMU governance, and, building on these debates, develops the three hypotheses that may answer the central research question. Chapter three presents the research design, explaining the rationale for a mixed-method approach that combines quantitative analysis of banks' exposures with qualitative process tracing. The fourth chapter applies this framework to test the hypotheses, comparing institutional reforms, policy responses, and market dynamics across the two crises. The final chapter synthesises the findings, reflects on their implications for euro area financial stability, and identifies avenues for future research.

Ultimately, the dissertation finds that while institutional reforms improved the resilience of the EMU, they alone cannot fully explain the euro area's stability in 2020. Rather, the analysis shows that the Euro zone avoided a second sovereign debt crisis in 2020 due to a combination of faster, more coordinated policy responses and the unique framing of the pandemic as an exogenous and symmetric shock. Together, these factors shaped market perception and prevented panic among investors, effectively limiting financial contagion across the euro area.

The relevance of this dissertation lies in its attempt to explain a puzzling empirical observation. Extensive scholarship has established that one of the main drivers of the European Sovereign Debt Crisis was the deep interconnection between sovereign and the banking sector, with particular emphasis on the role of banks' sovereign bond holdings in transmitting instability from the public sector to the financial system. The data underpinning this study show that the levels of banks' exposure to sovereign debt in 2020s were highly comparable to those observed during the 2010s crisis. Given the acknowledged role that such exposures played in amplifying the crisis, the sharp rise in 2020 would, under conventional expectations, suggest a renewed outbreak of sovereign-bank distress. Yet, this did not occur, raising fundamental questions about the evolving resilience of the euro area and on what factors altered the trajectory of a scenario that, on the surface, appeared predetermined.

Ultimately, this dissertation addresses the question by testing three hypotheses: (1) whether the decisive factor was institutional reforms in the EMU architecture; (2) changes in behaviour and

strategic approach of policymakers and heads of state; (3) or the different origine and nature of the Covid-19 crisis compared to the 2010s debt crisis. By identifying which factor accounted for this divergence, the research aims to contribute to three strands of literature, on the sovereign-bank nexus as a mechanism of financial instability; on the design and evolution of the EMU's fiscal and banking framework; and on the political economy of crisis management in Europe. Beyond its academic contribution, the findings bear direct relevance for policymakers, regulators, and market participants concerned with the persistence of vulnerabilities in the euro area's financial architecture. In a context where the Banking Union remains incomplete and fiscal integration contested, understanding why the euro area avoided a second sovereign debt crisis in 2020 is essential for preparing for the challenges ahead.

Chapter 1: Evolution of the Sovereign-Bank Nexus between the Sovereign Debt Crisis and the Covid-19 Crisis.

Introduction

The European Sovereign Debt Crisis exposed the deep interdependence between governments and banks within the euro area. Central to this relationship is the sovereign-bank nexus, a self-reinforcing dynamic that, through multiple transmission channels, shifts financial risk between the sovereign and the banking sector during times of crises.

This chapter begins by providing an overview of the sovereign-bank nexus, outlining the main channels through which sovereign risk is transmitted to the banking sector and, conversely, how banking distress can feed back into sovereign vulnerability. It then turns to the European Sovereign Debt Crisis, showing how exposure to Greek sovereign debt acted as a catalyst for contagion during the 2010s European crisis, driving up credit risk across the GIPS countries (Greece, Italy, Portugal and Spain). Drawing on empirical evidence from the 2010-2012 period and extending the analysis to the years 2014-2023, with particular attention to the Covid-19 crisis, the chapter sets the foundation for a broader analysis on how the sovereign-bank nexus has evolved in recent years.

Sovereign-Bank Nexus: An Overview

The global financial crisis of 2008 dramatically illustrated the existing link between the sovereign and the banking sectors. On the one hand, banking sector vulnerabilities can weaken a country's fiscal position when governments are forced to intervene in support of troubled institutions. On the other hand, sovereign fragility can erode the stability of the banks through their exposure to government debt. This two-way interaction, commonly referred to as the sovereign-bank nexus, was particularly visible during the European Sovereign Debt Crisis, where different member states experienced mutually reinforcing cycles of sovereign and bank distress (Dell'Ariccia et al., 2018).

Two features make the sovereign-bank nexus particularly destabilising. First, it is self-reinforcing, meaning that once a shock emerges on either side, it can quickly spill over to the other, setting in motion a vicious cycle that further deteriorates both sovereign and banking balance sheets, and that only policy intervention can halt. Second, the mechanisms of transmission operate irrespective of the nature of the initial shock. Whether triggered by fiscal stress or by banking fragility, the nexus amplifies risk through its impact on the real economy and through the mutual undermining of creditworthiness (Athanassiou and Vouldis, 2022).

Transmission occurs through several channels. Banks are directly affected when losses on sovereign bonds weaken their balance sheets, when sovereign downgrades reduce the value of collateral for funding, or when their own credit ratings are downgraded alongside that of the sovereign

(Dell'Ariccia et al., 2018; BIS, 2011). At the same time, sovereigns face fiscal pressures from the need to provide safety nets and guarantees to the banking system (Dell'Ariccia et al., 2018).

Policy intervention can mitigate these feedback loops. Reforms to the European monetary and regulatory framework after 2014, alongside unconventional monetary policies such as quantitative easing, helped weaken the strength of the nexus (Fiordelisi et al., 2020; Bechtel et al., 2021). However, the Covid-19 pandemic revived concerns about sovereign-bank interdependence, as rising public debt coincided with bank's increased holdings of domestic sovereign securities. This has raised questions about whether the vulnerabilities exposed during the 2010-2012 crisis are still present in the European financial system.

Channels of Risk Transmission

Following Dell'Ariccia et al. (2018), three key channels of risk transmission can be identified. The safety net channel, reflecting the role of government guarantees in stabilizing the financial system. The sovereign exposure channel, that arises from banks holding government debt. Lastly, the macroeconomic channel showing how rising sovereign risk can weaken economic activity, deteriorate banks' loan portfolios, and increase funding cost, further destabilizing the financial system (Dell'Ariccia et al., 2018).

These three channels can also operate in reverse (Dell'Ariccia et al., 2018). And they tend to reinforce one another, amplifying and transmitting shocks between the sovereign and the banking sector. This interaction weakens balance sheets and creates a self-reinforcing vicious doom-loop. The sovereign-bank nexus is triggered when a financial shock leads to a decline in sovereign creditworthiness, which in turn reduces the market value of banks' balance sheets due to their holdings of domestic government debt. This undermines the perceived financial stability of local banks, raising the likelihood of a government bail-out. A weakened banking system further exacerbates sovereign credit risk. In other words, the sovereign-bank nexus acts as a multiplier and accelerant of vulnerabilities in both sectors (Dell'Ariccia et al., 2018).

The Safety Net Channel

The safety net channel emerges as a consequence of the governments' role in providing financial protection to the banking sector through explicit or implicit guarantees on bank liabilities. While this mechanism reduces uncertainty during stable periods and helps mitigate financial disruptions in times of crises, it also shifts risk from banks to the government's balance sheets (Stanga, 2014). However, if a government faces financial distress, the credibility of these guarantees may decline, making it more costly for banks to secure funding. This independence creates a two-way risk, where banking failures further strain public finances through crises resolution measures,

reinforcing the link between sovereign and financial sector stability (Dell'Ariccia et al., 2018). The Global Financial Crisis clearly showed these dynamics, with Ireland serving as a prime example of how a banking crisis can escalate into a sovereign debt crisis (Pepino, 2015). As vulnerabilities in the Irish financial system surfaced during the crisis, the banking sector experienced severe distress. In response, on September 30, 2008, the Irish government issued a blanket guarantee covering nearly all liabilities of six major Irish banks, an extraordinary commitment amounting to approximately 250% of Ireland's 2011 GDP (Correa and Sapriza, 2014). This decision irrevocably linked the fates of the Irish sovereign and its banking system. The bailout effectively transferred the credit risk of the banking sector to the public sector. Initially, market actors saw the guarantee as stabilising the banking sector but concerns quickly grew over the strain it placed on public finances (Acharya, Drechsler and Schnabl, 2011). In the following months, Ireland became one of the most distresses sovereign credits globally, with borrowing costs rising to unsustainable levels. Ultimately, the Irish government lost market access and was forced to seek external financial assistance, culminating in a bailout by stronger Eurozone economies (Acharya et al., 2014).

The Real Economy Channel

The macroeconomic channel plays a critical role in transmitting the effects of the sovereign bank nexus to the real economy. During financial crises, contractions in credit availability can trigger recessionary dynamics. (Brunnermeier et al., 2016). Rising sovereign risk further exacerbates this downturn by necessitating fiscal consolidation, typically in the dorm of tax increases and spending cuts, while also increasing funding costs and amplifying political uncertainty. These developments depress household income and corporate revenues, and higher sovereign spreads directly constrain economic activity by raising corporate borrowing costs and reducing household wealth through the devaluation of public bond holdings. Consequently, banks face deteriorating loan portfolios, a rise in non-performing loans, and declining overall stability of the banking sector (Dell'Ariccia et al., 2018).

Importantly, this macroeconomic feedback loop also works in reverse. Banking crises disrupt credit supply, and informational frictions prevents firms and households from easily substituting bank credit with alternative sourcing. This deepens the economic slowdown and further erodes fiscal balances (Dell'Ariccia et al., 2018).

The Sovereign Exposure Channel

The sovereign exposure channel, the most relevant for this thesis, operates through the assets side of banks' balance sheets, as changes in a government's creditworthiness, whether deterioration or improvement, can lead to corresponding losses or gains for banks (Angelini, Grande and Panetta, 2014). By holding sovereign debt, banks become vulnerable to risks stemming from dynamics that

interest the sovereign sector. Bank's holdings of sovereign debt represent the most important direct link between states and banks, as once markets begin questioning the creditworthiness of a sovereign, a vicious feedback loop between banks' solvency and the credit risk pricing of their sovereigns is set in motion (Athanassiou and Vouldis, 2022). As explained by the Bank of England, when banks are creditors to their governments, the impact on the banking system of sovereign stress depends on the amount of public debt that banks have taken during the run-up to a sovereign debt crisis, reducing the ability of the sovereign to contain the banking crisis (Bank of England, 2010).

More specifically, since banks hold significant amount of sovereign debt any increase in the perceived likehood of a sovereign default can directly weaken bank's balance sheets, this mechanism played a central role during the European Sovereign Debt Crisis, as empirically demonstrated by Angeloni and Wolff (2012), Buch et. Al (2013), and De Bruyckere et al. (2013). Moreover, a decline in the market value of sovereign bonds deteriorates banks' funding conditions, as these bonds serve as a key collateral in refinancing operations. Their depreciation reduced the value of collateral available, limiting banks' access to liquidity (Kaminsky, Reinhart and Vegh, 2003).

A clear example of contagion from the sovereign to the banking sector occurred by the Greek crisis of 2010. Although Greece experienced rapid growth between 2000 and 2007, this was driven by excessive public and private borrowing rather than improvements in productivity or competitiveness (Athanassiou and Vouldis, 2022). By 2009, Greece's public debt had reached 115% of GDP, with 80% of that debt held externally, and a revised deficit figure of 12.7% of GDP, double the previous estimate, that shocked markets and triggered a sharp loss in confidence in Greek sovereign bonds. Although Greek banks were initially less exposed to market-based funding, they held significant amounts of domestic government debt. As the value of these bonds fell and credit rating agencies downgraded Greece's sovereign rating, Greek banks also faced downgrades, rising funding costs, and deteriorating collateral quality (Hardouvelis and Vayanos, 2023). By late 2010, the financial risk of Greek banks had become closely tied to that of the state, illustrating the powerful feedback loop between sovereign and banking sector distress.

Banks' Exposure to Sovereign Debt

Why Banks Hold Sovereign Debt?

European governments have traditionally occupied a significant position on the balance sheets of financial institutions, not only as issuers of assets but also, and notably, as major liabilities. On the liability side, the state often emerges as the largest single debtor to many European banks, reflecting deep financial interdependence (Arnold, 2012).

Sovereign bonds not only serve as liquid investments but also provide several strategic advantages for banks, including balance sheet and liquidity management, regulatory incentives, and monetary policy operations. Sovereign securities, being among the most liquid assets, are crucial for meeting short-term funding needs and serving as collateral for access to the European Central Bank's regular refinancing operations and long-term refinancing operations programs (Nakaso, 2013 and Dell'Ariccia et al., 2018). Regulatory frameworks in Europe further encourage banks to hold sovereign debt. Under the Basel regulatory framework, sovereign exposures often receive favourable capital treatment, with domestic government bonds assigned a 0% risk weight (Noyer, 2012). This reduces the amount of capital banks must hold against these assets, making them more attractive than other investments. Furthermore, Basel III[1] requires banks to hold a buffer of high-quality liquidity assets (HQLA) to endure short-term financial stress. Since sovereign debt is typically classified as HQLA, banks are incentivised to hold government bonds to meet these regulatory requirements (Basel Committee on Banking Supervision, 2017).

While discussing European banks' sovereign exposure, it is important to highlight that their sovereign portfolios consist almost entirely of domestic government debt, reflecting a significant *home bias* (De Marco and Machiavelli, 2016). While the general reasons behind EU banks' substantial holdings of sovereign bonds are well established, these factors do not fully account for the preference for domestic over foreign sovereign debt. Notably, the existing regulatory framework does not provide any explicit advantage for holding home-country bonds over other euro area sovereigns (Gaballo and Zetlin-Jones, 2016). However, banks have been criticised for disproportionately investing in bonds issued by their own government, particularly during periods of sovereign stress, thereby reinforcing the so-called "doom loop" between European banks and their sovereigns. This dynamic increases the risk of contagion, as a stronger home bias means that financial institutions are more vulnerable to the fiscal health and market perception of their domestic sovereign debt (Lamers et al., 2022).

Banks' holding of sovereign debt between 2009 and 2012

By the end of 2008, domestic sovereign bonds accounted for approximately 2% of the total assets held by euro area banks. However, this landscape completely changed over the following years. By the end of 2012, domestic sovereign bonds had become the largest single component of many banks' balance sheets. This shift was particularly pronounced among banks located in the GIPS countries, which significantly increased their holdings following the start of the crisis in May 2010. In fact, the volume of domestic sovereign bonds held by these banks quadrupled during this period (Ongena et al., 2019).

The drivers behind this development have been extensively explored in post-crisis academic literature. Several theoretical models suggest that domestic banks are incentivised to hold domestic sovereign bonds due to the expectation of bailouts in case of sovereign default (Uhlig 2014, Acharya, Drechsler, and Schnabl 2014, and Farhi and Tirole 2018). While, according to Gennaioli, Martin, and Rossi (2014) banks hold large amounts of domestic sovereign debt for liquidity purposes. Beyond these theoretical explanations, a large body of empirical research has focused on the role of political factors in shaping banks' behaviours in times of crises. Studies by La Porta et al. (2002) and Shen and Lin (2012), among others, demonstrate how government ownership and political influence can distort banking decisions.

Beginning in 2010, the European Union launched a series of stress tests designed to evaluate the resilience of euro zone banks under adverse but plausible economic scenarios. These exercises aimed to assess the ability of banks to absorb potential shock related to credit, market, and sovereign risks (EBA, 2011a).

The stress tests conducted between 2010 and 2012 covered a wide sample of European banks and introduced an unprecedented degree of transparency regarding their capital structures and sovereign exposures. This level of disclosure allowed detailed analyses of the role played by banks' holdings of both domestic and other euro area sovereign debt during the sovereign debt crisis of the 2010s.

Table 1 shows the evolution of banks' sovereign exposure across banks located in GIPS countries, drawing on data from the 2010 CEBS stress test and the subsequent tests.

Table 1: GIPS Sovereign Bond Holdings (2010-2013, in € million)

Reporting Date	Greece	Italy	Portugal	Spain
July 2010	60,57	154,635	14,144	148,627

December 2010	57,665	171,196	18,848	163,162
September 2011	2,747	164,082	19,021	147,459
December 2011	2,585	153,923	15,467	115,594
June 2012	146	189,508	20,544	127,847

Source: Author's elaboration based on EBA data.

The evidence from EBA's stress tests, confirm the shift in euro area banks' sovereign bond holdings during the crisis period. As shown in Table 1, banks located in GIPS countries exhibited persistently high levels of exposure to domestic sovereign debt between 2010 and 2012. This increase resulted from a combination of market incentives, regulatory pressure and central bank intervention. Ultimately, this pattern of behaviour deepened the sovereign-bank nexus, reinforcing systemic vulnerabilities and amplifying the feedback loop between sovereign credit risk and banking sector fragility during the crisis (Koetter and Zimmerman, 2019).

The crisis in Europe

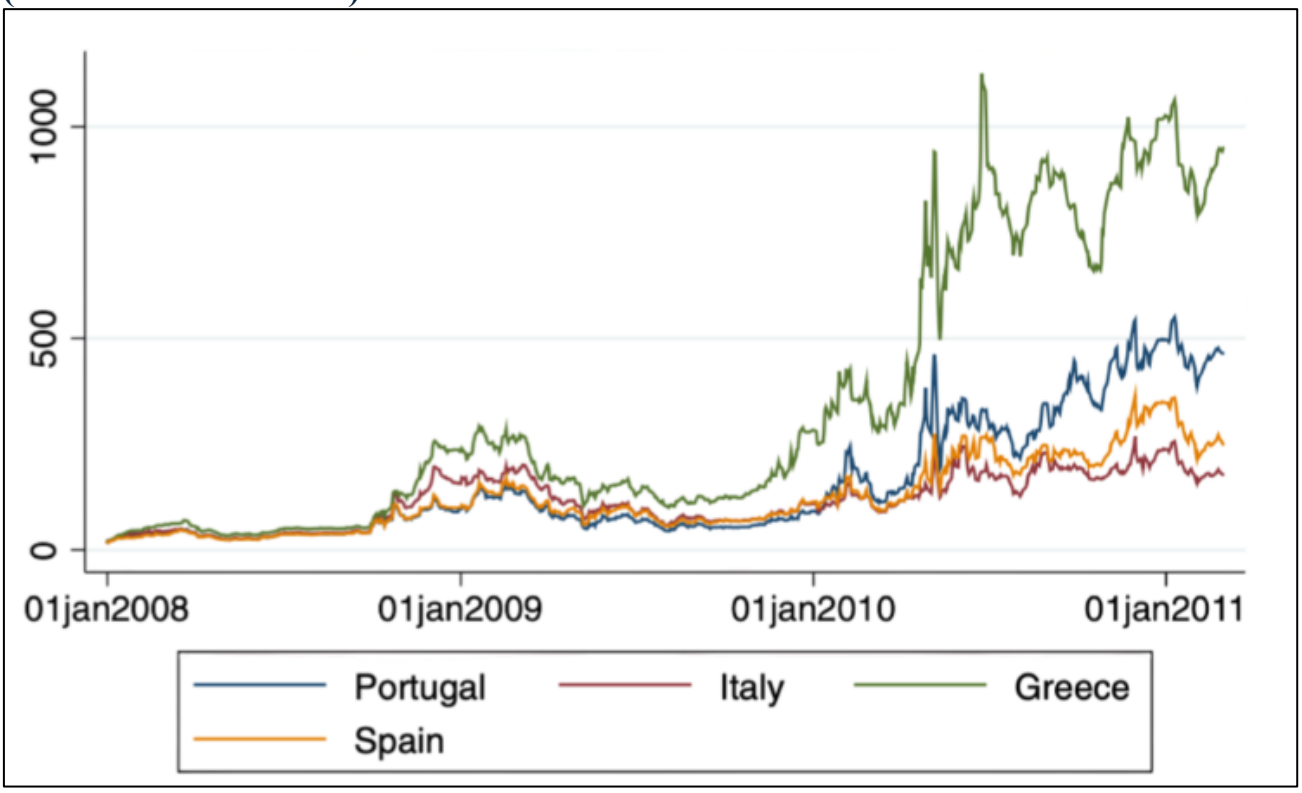
August 2007 marked the initial phase of the global financial crisis, originating by the bursting of the US housing market bubble. What initially appeared as a subprime mortgage issue quickly escalated into a world crisis, severely impacting the American financial system. The situation deteriorated further in September 2008, when the collapse of Lehman Brothers triggered global panic, affecting the European Union as much as the United States (Lane, 2012).

In the old continent, the crisis took a unique turn when it quickly evolved into a sovereign debt crisis. The situation escalated when several European countries reported larger-than-expected increases in deficit/GDP rations, with Greece being the most shocking one (Lane, 2012). Greece's public debt had risen to 115% of GDP, with 80% of that debt held externally, alongside a public deficit of 12.7% of GDP. This figure, disclosed by the newly elected socialist government in October 2009, was far higher than the 6% estimate previously reported by the outgoing administration. This revelation triggered unprecedented market speculation against Greek sovereign debt, pushing spreads and CDS rates to record highs (Pagoulatos and Quaglia, 2013).

The Greek sovereign debt crisis quickly spilled over into a banking crisis, despite Greek banks initially being in a relatively strong position due to their lower reliance on market-based banking compared to other countries. The sovereign crisis impacted Greek banks by reducing the value of their holding in Greek government bonds and eroding the quality of the state's guarantees on bank loans and deposits (Hardouvelis and Vayanos, 2023). As Greek government bonds depreciated, they became a burden for the banking sector, particularly for banks with large holdings in these securities, both domestic and foreign.

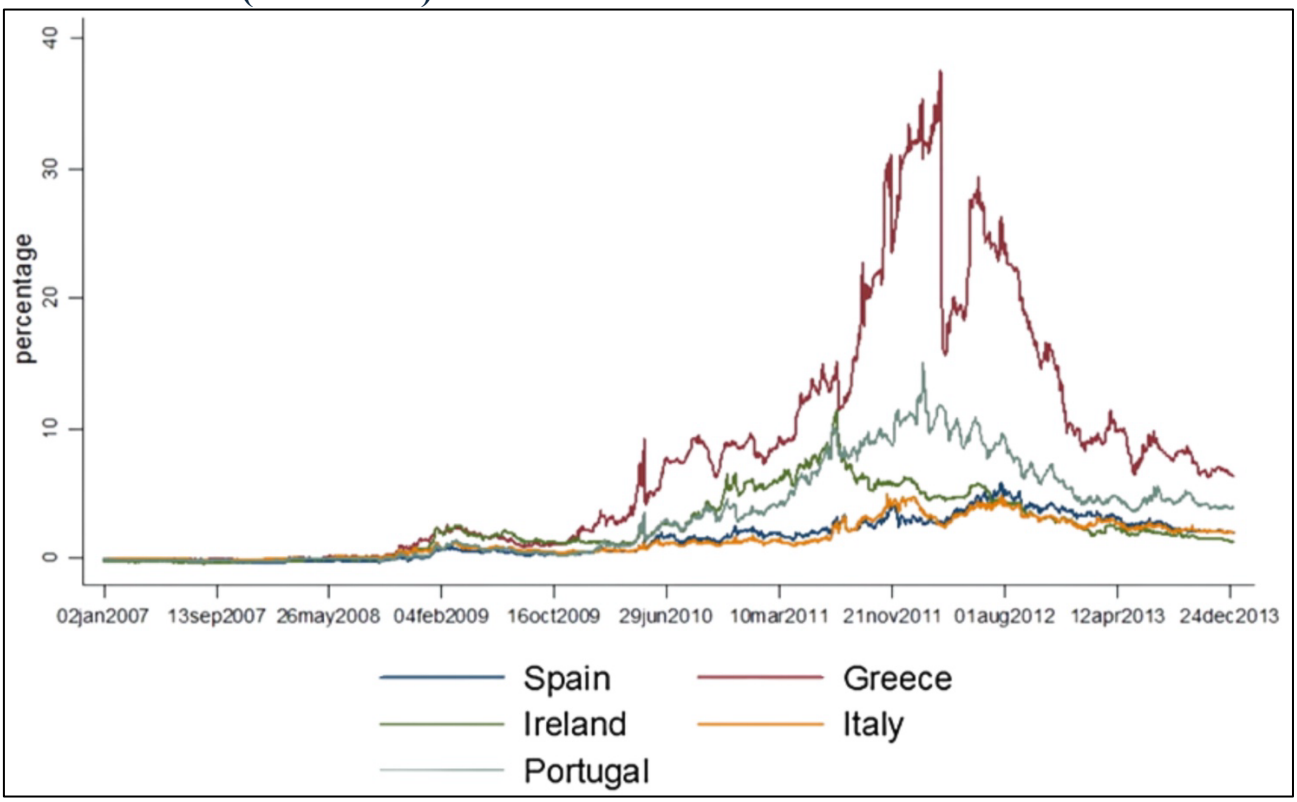
As the Greek banking sector became stressed due to the financial situation of the Greek sovereign, foreign counterparties of Greek banks were adversely affected. During the 2010s, this dynamic realised in heightened sovereign default risk of the GIPS countries, namely Greece, Italy, Portugal and Spain, amplified by already vulnerable fiscal conditions. This was reflected in rising Sovereign CDS premium and widening spreads between 10-year GIPS government bonds and German government bonds, as illustrated in Graph 1 and Graph 2.

Figure 1: Daily Five-Year Sovereign CDS Spreads for GIPS Countries (Jan 2008 – Mar 2011)



Source: Brutti and Sauré, 2011.

Figure 2: Sovereign Yield Spreads of Five Euro-Area Countries Relative to German Bund (2007–2013)



Source: Jager and Grigoriadis, 2017

In Greece, Italy, Portugal, and Spain, the deterioration of sovereign creditworthiness reduced the market value of banks' holdings of domestic sovereign debt. This reduced the perceived solvency of domestic banks and curtailed their lending activity. The resulting bank distress increased the chances that banks would have to be bailed out by their (domestic) government, which increased sovereign distress even further, engendering a "bailout loop" (Brunnermeier, 2016).

Financial exposure to Greek debt played a central role in the contagion of sovereign risk across the Euro area during the crisis. Both exposure to Greek government bonds and to the debt of Greek banks contributed to rising risk perceptions in other Eurozone countries. As a result, a widespread crisis of confidence hit the so-called "peripheral" euro area countries and their banks. The "Greek revelation" fostered market speculations about the financial situation of other European countries, especially those with weaker fiscal fundamentals, as Italy, Ireland, Portugal and Spain. More specifically, Brutti and Sauré (2011) found that during the European Sovereign Debt Crisis the role of sovereign debt exposure was considerably more influential in transmitting stress than exposure to Greek banking sector. These findings highlighted the importance of cross-border financial linkages in amplifying crises

On this background, financial linkages across countries, and in particular cross-border bank exposures, played a central role as drivers of contagion. As Christine Lagarde, Managing Director of the International Monetary Fund, posed it:

> *"Financial exposures across the continent are transmitting weakness and spreading fear from market to market, country to country, periphery to core."*
>
> *(Lagarde, 2011)*

During the early years of 2010s, the sovereign-bank nexus emerged in the euro area with three empirical patterns that confirmed the interdependence between sovereigns and banks. First, the failure of several banks motivated significant government interventions, increasing public debt burdens. Second, banks across the euro area maintained a strong exposure to sovereign risk, which remained biased towards their domestic governments. Third, sovereigns in the Economic and Monetary Union experienced hikes in their default risk, which closely mirrored rises in the default risk of domestic banks (Boitan and Marchewka-Bartkowiak, 2021).

At the core of this feedback loop was commercial banks' exposure to sovereign bonds, both domestic and foreign. Banks held mountains of government bonds that fell in value, triggering spirals of rating downgrades that sent bank borrowing costs up, resulting into a credit crunch that slowed economic growth. That in turn, hit government finances and perpetuated the doom loop between banks and their sovereigns.

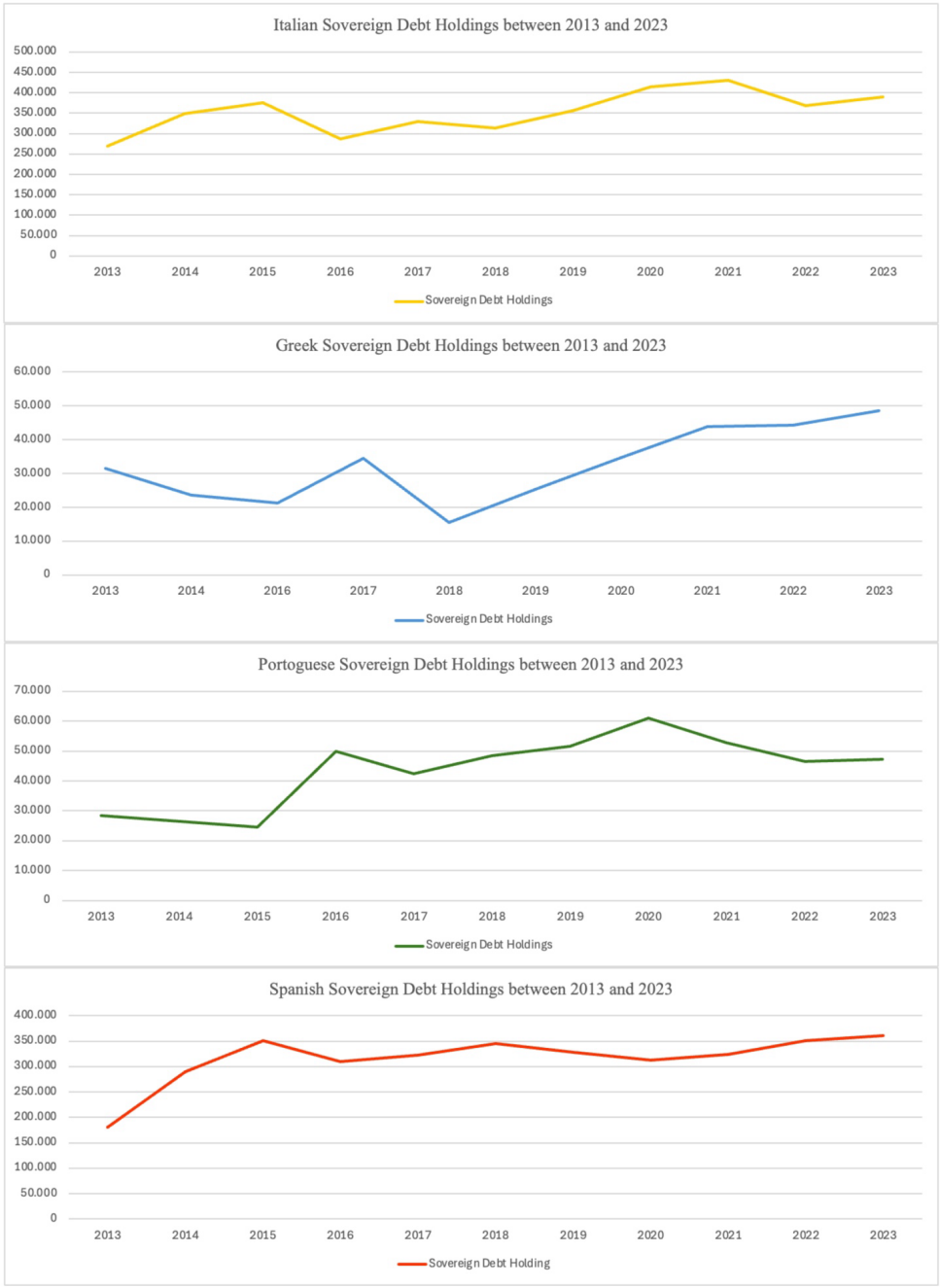
The European Sovereign Debt Crisis highlighted how excessive domestic sovereign exposure could serve as a key transmission channel for crisis escalation, turning localised fiscal vulnerabilities into broader financial instability within the euro area. Empirical studies by BIS (2011), Acharya et al. (2013) and De Bruyckere et al. (2013), by using bank and sovereign CDS spreads, confirm the central role of the asset holding channel in this process. They find that banks with higher exposure to a given sovereign were more vulnerable to financial shocks originating from that country, amplifying systemic risk during the crisis.

Banks' holdings of sovereign debt in 2015-2023

In the aftermath of the European Sovereign Debt Crisis, many euro area countries observed a decline in sovereign-bank interlinkages, and in turn the risk of intertwined crisis, mainly as a result of a declining level of domestic sovereign debt held by euro zone banks. This trend was temporarily reversed in early 2020. In response to the Covid-19 pandemic, banks absorbed a significant portion of the debt issued by national governments to finance emergency fiscal measures (Heike, 2024). The

extent of this reversal varied across countries, with GIPS countries exhibiting notable differences in trajectory. Figure 3 illustrates this shift in GIPS countries, where banks' sovereign debt holding generally increased around 2020. While the magnitude and timing of these increases varied across countries, the overall trend reflects a broader pattern of renewed sovereign exposure during the pandemic period.

Figure 3: Sovereign Debt Holdings of Banks in GIPS Countries (2013)



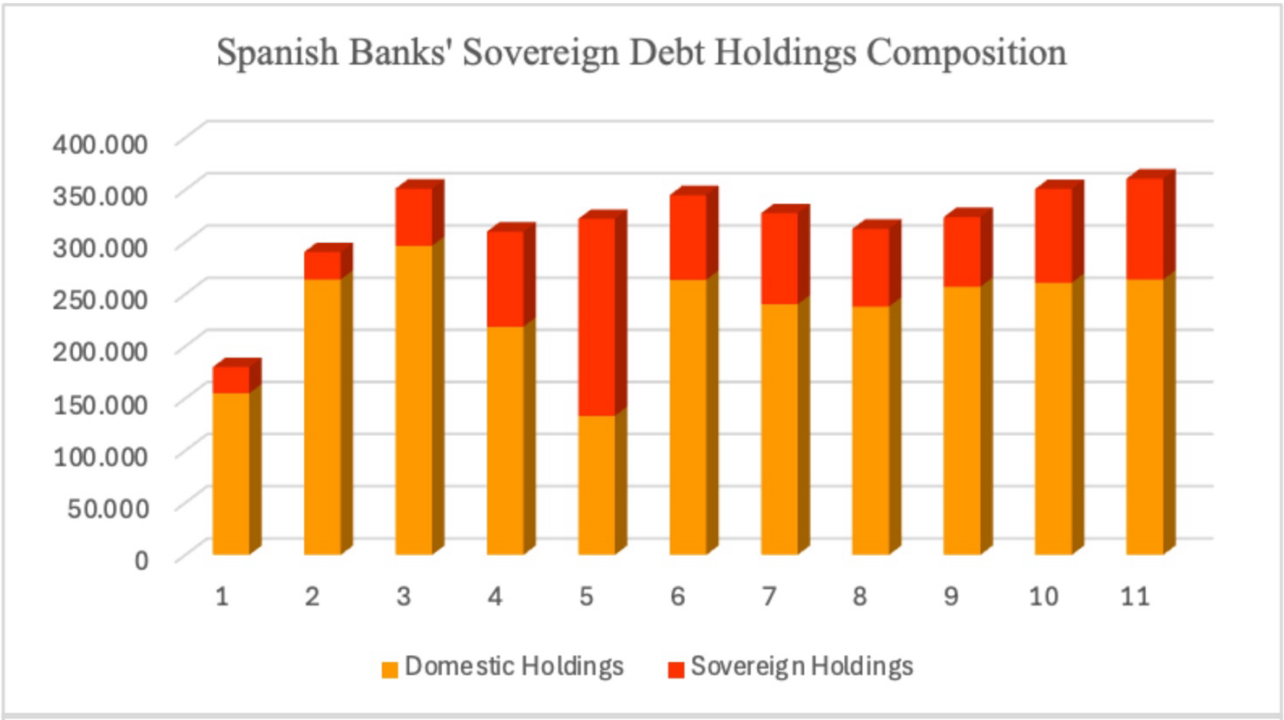
Source: Author's elaboration based on EBA data.

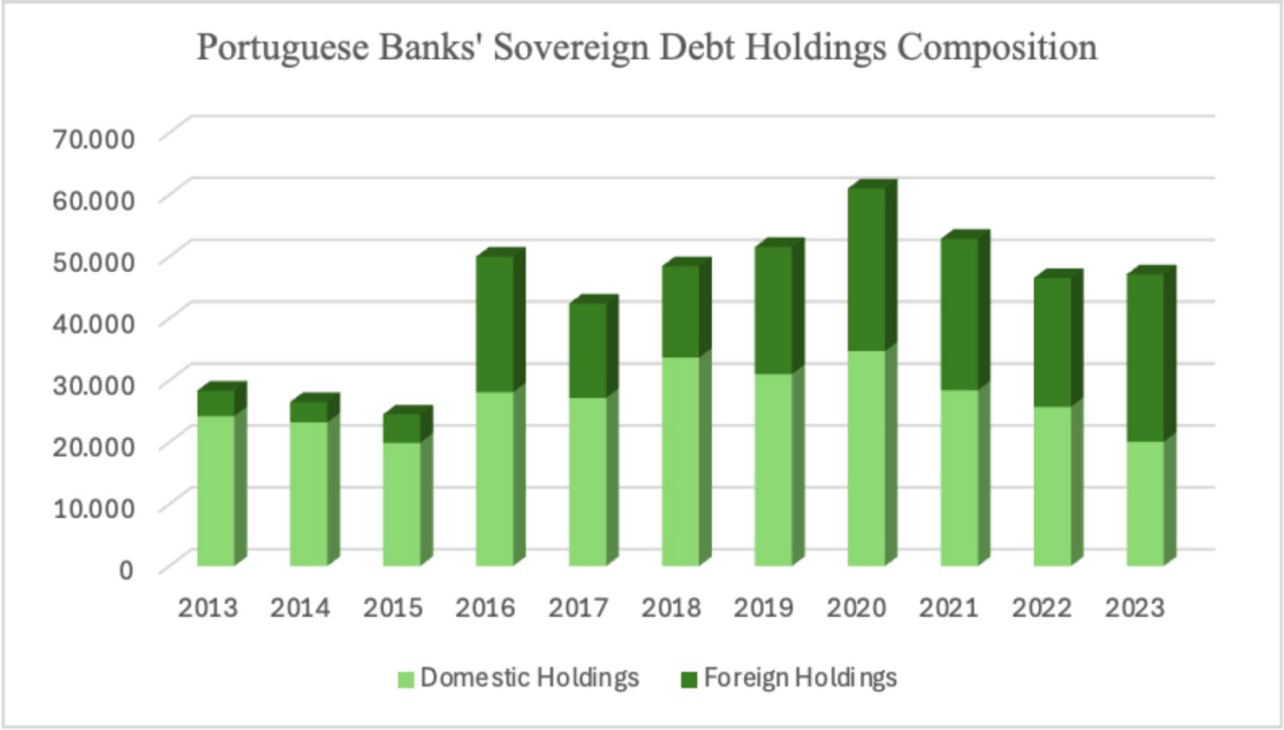
In the years following the sovereign debt crisis, bank exposure remains significantly tilted towards the home country, despite no differences in the regulatory treatment across the EMU. Domestic sovereign debt still makes up 80% of total euro-area exposure. Between May 2010 and

June 2012, banks in core countries held an average of 34,5% of their sovereign debt, while banks in peripheral countries held an average of 74.3% (Battistini, Pagano and Simonelli, 2013). More broadly, from 2011 to 2014, European banks largely concentrated their investments in bonds issued by their own national governments (Lamers et al., 2022). In the following period, 2015-2018, banks' sovereign bonds holdings appeared to be guided more by risk and return considerations, seemingly indicating a weakening of the dangerous feedback loop between banks and governments. However, a deeper analysis reveals that this shift was largely driven by banks in non-GIPS countries, while banks in GIPS countries, showed little to no improvement (Lamers et al., 2022).

The data disclosed by the EBA stress tests and transparency exercises conducted between 2012 and 2022 reinforce the conclusions of Lamers et al. (2022). Banks in GIPS countries continues to exhibit persistently high exposure to their own government's sovereign debt, with minimal reduction over the decade.

Figure 4: shows Greek, Italian, Portuguese and Spanish Banks' Sovereign Debt Holding Composition between 2012 and 2023

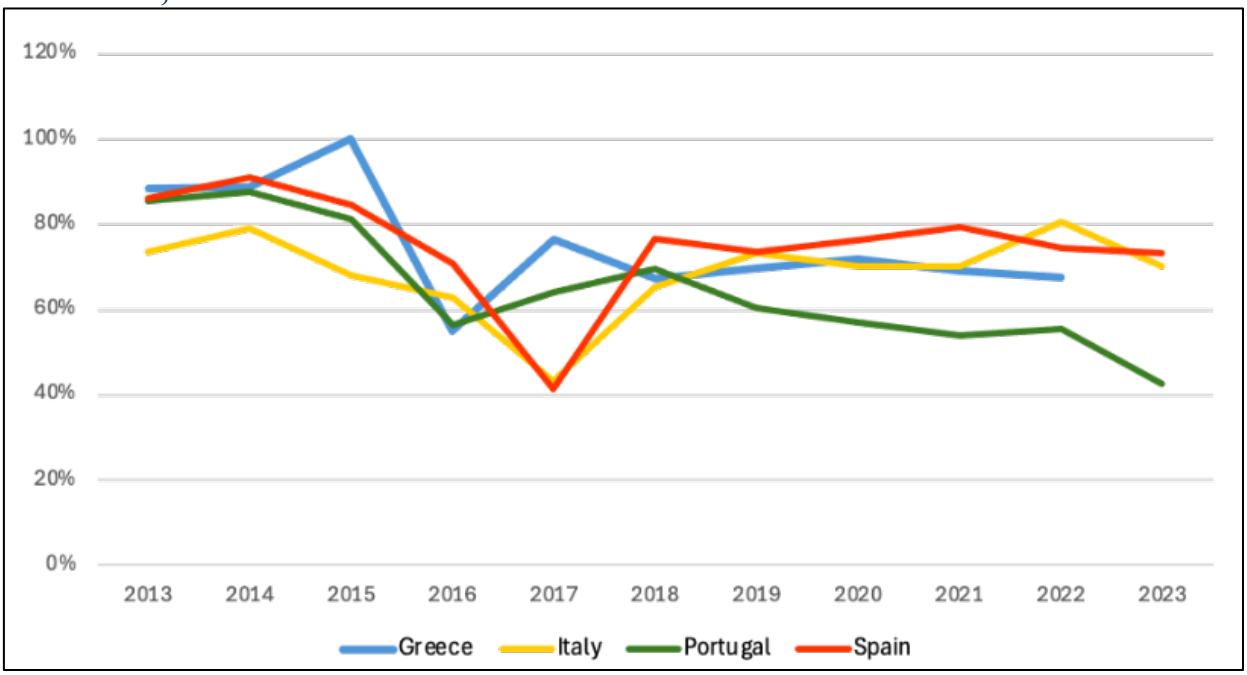

Spanish Banks' Sovereign Debt Holdings Composition
400.000
350.000
300.000
250.000
200.000
150.000
100.000
50.000
0
1
2
3
4
5
6
7
8
9
10
11
Domestic Holdings
Sovereign Holdings


Portuguese Banks' Sovereign Debt Holdings Composition
70.000
60.000
50.000
40.000
30.000
20.000
10.000
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Domestic Holdings
Foreign Holdings

Source: Author's elaboration based on EBA data.

As shown in Figure %, Greek, Italian and Spanish banks have consistently held over 60% of their sovereign debt portfolios in domestic bonds. Portugal stands out as the exception, where banks have shown a noticeable shift away from domestic debt, reflecting a gradual decline in home bias.

Figure 5: Share of Domestic Sovereign Debt Held by Domestic Banks in GIPS Countries, 2012-2023



Source: Author's elaboration based on EBA data.

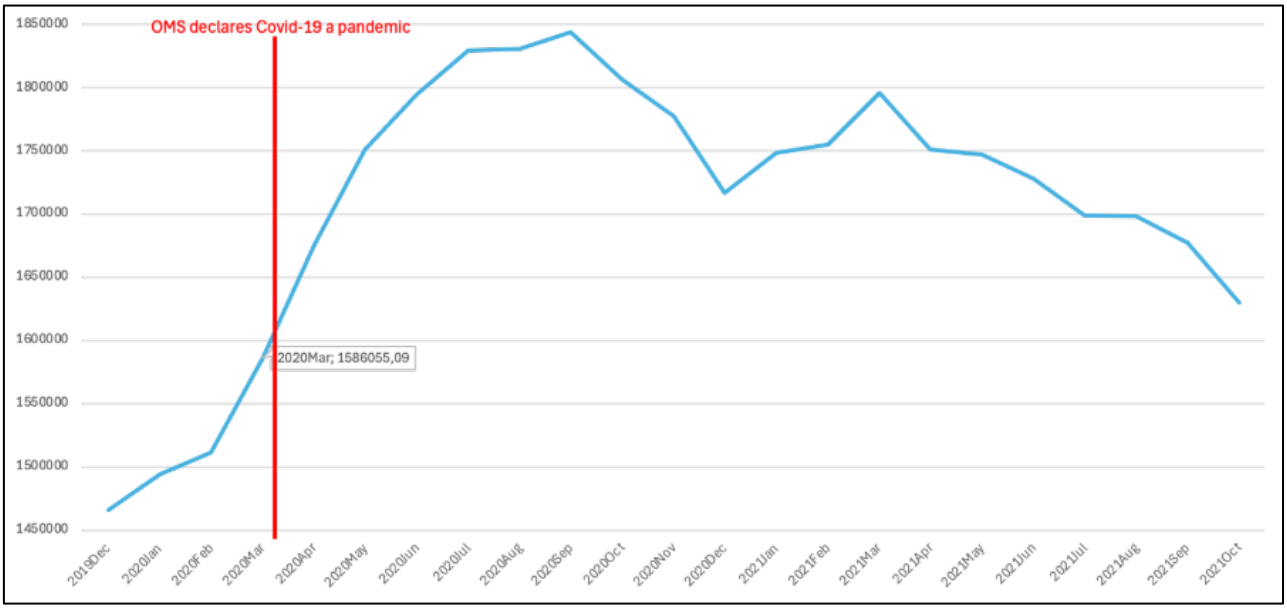
Overall, the combination of home bias and renewed accumulation of domestic sovereign debt during the pandemic has reignited concerns about the re-emergence of the sovereign-bank nexus in

the euro area. The pattern observed in GIPS countries, mirrors the dynamics already seen during the 2010-2012 sovereign debt crisis, highlighting the potential continued vulnerability of the euro area's financial architecture.

The Covid-19 Crisis

The Covid-19 pandemic and the fiscal measures implemented to support the economy increased sovereign debt, and in turn the exposures of banks to government debt. In the wake of the pandemic outbreak, many EU member states, as well as the European Commission, launched public stimulus programmes, aimed at providing support to the European economies. At the onset of the pandemic, the strict lockdown measures hit large parts of the real economy, raising the vulnerability of the corporate sector to levels last seen during the global financial crisis (Schanbel, 2021). In response, governments swiftly launched broad-based measures to support households and firms, including job retention schemes, direct transfers, tax cuts and loan guarantees. In March 2020, the European Commission launched the Coordinated Economic Response to the Covid-19 Outbreak, in which highlighted how the banking sector played a key role in dealing with the effects of the Covid-19 pandemic (European Commission, 2020). The wide-ranging policy support protected employment and stabilised aggregate demand, thereby substantially reducing the depth of the recession and the risks of scarring effects in the long run. At the same time, the pandemic sparked a marked increase in sovereign debt levels. In 2020, euro area banks' exposure to domestic sovereign debt securities rose by almost 19% in nominal terms, the largest increase since 2012 (Lozano Guerrero et al., 2020).

Figure 6: Euro area banks' holdings of government debt issued by European countries



Source: Author's elaboration based on ECB Data.

Concerns about the risks of another sovereign debt crisis in the euro area began to resurface, as government borrowings started reaching levels comparable to the 2010s and bank exposure to domestic sovereign bonds increased. This growing concern was captured in a Wall Street Journal Article titled "Banks Pile into Government Debt, Setting Up 'Doom Loop' Sequel in Europe" highlighting how eurozone banks, flush with liquidity from ECB pandemic relief programs, purchased nearly EUR 200 billion in domestic government bonds in just one year. While these purchases were incentivized by favourable borrowing conditions, they rekindled memories of Europe's last financial crisis, when a sovereign problem in a weaker eurozone country quickly evolved into a broader financial-sector crisis (Kowsmann, 2020).

Conclusion

This chapter begins by providing an overview of the interdependence existing between the sovereign and the banking sectors, along with the main channels through which risk is transmitted from one sector to the other.

It initially focuses on the European Sovereign Debt Crisis, analysing the level of sovereign debt exposure held by European banks between 2008 and 2013. Particular attention is given to the role of Greek sovereign debt in triggering contagion dynamics that ultimately led several peripheral eurozone countries to seek financial assistance from the EU and the International Monetary Fund.

The chapter then turns to the post-crisis period, examining how the balance sheets of banks in the countries most affected by the crisis, specifically Greece, Italy, Portugal and Spain (GIPS

countries), evolved over time. Although European banks generally reduced their sovereign debt holdings after the crisis, this trend was uneven. Banks in GIPS countries continued to maintain high levels of exposure, particularly their own government debt. This persistent home bias reinforced the potential risk spillovers between the sovereign and banking sectors in times of financial stress.

As the Covid-19 pandemic unfolded in 2020, government borrowings surged to levels comparable to those seen during the 2010s crisis, and banks, especially in GIPS countries, once more increased their holdings of domestic sovereign bonds. This raised fears over a "sequel of the doom loop in Europe" (Kowsmann, 2020). Yet, despite the apparent similarities in sovereign exposure, fiscal vulnerabilities, and macroeconomic uncertainty, a full-scale sovereign debt crisis did not materialise.

This paradox raises a fundamental question: *why did Europe not experience a second sovereign debt crisis, despite condition that closely mirrored those of the 2010s?* The following chapters aim to explore this question in depth, considering the impact of institutional reforms, policy responses and changes in market perception that may have helped break or at least weaken the vicious cycle between sovereigns and banks.

Chapter 2: Why did Europe not experience a second sovereign debt crisis in 2020? Three hypotheses to answer this question.

Introduction

Building on the first chapter's overview of the sovereign-bank nexus and its analysis of the Eurozone banks' holdings of sovereign debt, this second chapter introduces the hypotheses that will be tested in order to answer the dissertation's central question: "*Why did Europe not experience a second sovereign debt crisis in the 2020s, despite condition that closely mirrored those of the 2010s?"*.

The hypotheses derive from three strands of scholarship that gained relevance in the aftermath of the Covid-19 crisis. First, debates on the effectiveness of institutional reforms implemented after the Sovereign Debt Crisis motivate Hypothesis 1, which posits that institutional change mitigated bank-sovereign feedback loop in 2020. Secondly, research on policy learning and the evolution of EU policymakers' behaviour underpins Hypothesis 2, which argues that a shift toward rapid, coordinated and solidarity-based intervention prevented escalation. Third, analyses on market perceptions and the exogenous and symmetric nature of the pandemic inform Hypothesis 3, which suggests that the distinct framing of the pandemic crises prevented panic-driven contagion.

The remainer of the chapter situates each hypothesis within its respective academic debate and sets out its underlying causal logic. For each hypothesis, it also identifies the indicators to be compared across the two periods, thereby structing the empirical analysis that follows.

Hypothesis 1: Institutional Reforms and Structural Change

This dissertation aims to understand which factors, or combination of factors, avoided Europe to experience a second sovereign debt crisis in 2020s, despite macroeconomic conditions that mirrored those of 2010s. As a result, the debate concerning whether the reforms implemented after the Eurozone crisis have proven efficient in weakening the sovereign-bank nexus is crucial for this analysis as it lays the ground for the first hypothesis studied.

One side of the literature views the reforms implemented following the Eurozone sovereign-debt crisis as pivotal for strengthening EMU's architecture. Meier et al. (2021) document the evolution of EU financial regulation in response to the crisis, focusing on the expansion of regulatory and supervisory tools, while Hobelsberger et al. (2022) link these reforms directly to the euro area's capacity to respond effectively to the Covid-19 shock. This notion finds support in the ECB's Financial Stability Review (2024), highlighting how the reforms bolstered banking sector resilience within a highly volatile and uncertain geopolitical environment. Moreover, the latest OECD

Economic Survey (2025) suggests that strengthened regulatory frameworks and effective oversight allowed euro zone banks to face recent turmoil from the pandemic and the geopolitical situation. Finally, Hardy and Zhu (2023), directly addresses the issue of banks' sovereign debt holding, arguing that the ECB's capacity to intervene directly in sovereign debt markets through large-scale asset purchase programmes shifted sovereign debt away from banks and into central bank balance sheets weakening the sovereign-bank mechanism.

On the other hand, there are several scholars arguing that the reforms implemented after the sovereign debt crisis are incomplete or insufficient. Dymski and Kaltenbrunner (2020) define the reforms that followed the crisis as marginal changes, hence not sufficient to address the core design flaws. On the same line, Camous and Claeys (2020) argue that the imperfections of the first measures implemented after the outbreak of the Covid-19 pandemic underline the still existing shortfalls of the fiscal-monetary architecture of the EU. Boitan and Marchewka-Bartkowiak (2021) underline that most EU countries entered the pandemic with insufficient financial buffers and that banks increased their sovereign exposures, pointing to the incomplete effectiveness of post-crisis reforms.

Building on this debate, the first hypothesis presented in this research posits that the institutional reforms implemented after the 2012 played a decisive role in weakening the sovereign-bank nexus during the Covid-19 crisis, avoiding a second debt crisis.

From the launch of the monetary union to the European sovereign debt crisis.

Before the 2010s crises, the supervisory model of the EU financial system was extremely different from the structure existing today. When the euro was introduced in January 1999, the European Central Bank was granted exclusive competence for setting the single monetary policy and maintaining price stability within the euro area. However, no single EU institution was put in charge for economic policy. Budgetary and fiscal responsibilities remained under the control of national governments, a situation that persisted until the 2008 global financial crisis and the following sovereign debt crisis (Payne, 2020).

The original design of the Economic and Monetary Union, codified in the Maastricht Treaty, did not anticipate the need to centralise banking supervision at the EU level (Angeloni, 2015). As a result, from January 1999 to July 2007, banking supervision in the EU was characterised by limited information sharing, inconsistent supervisory practices, and fragmented regulatory frameworks. Cooperation among national supervisor was minimal, and there were no joint banking resolution procedures in place, despite some early efforts. The first attempt to create a centralised institutional structure for the supervision of the EU's financial system emerged in 2001, when the EU established three bodies: the Committee of European Securities Regulators (CESR), the Committee of European

Banking Supervisors (CEBS), and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). However, these committees lacked direct supervisory powers and operated primarily through soft coordination, as their aim was to encourage National Competent Authorities (NCAs) to adopt a more European approach to supervision (Payne, 2020).

The financial crisis exposed the flaws of this fragmentated supervisory model. Despite previous attempts, the institutional setup of the CESR, CEBS and CEIOPS proved inadequate for crisis management (Payne, 2020). This idea was confirmed in the Larosière report, published in February 2009, that criticised the supervisory system in place for failing to identify macro-systemic risks of contagion and for focusing just on the micro-prudential supervision of individual financial institutions. The regulatory response to the crisis was further undermined by weak cooperation between national authorities and lack of coordination at the EU level. In the absence of a common crisis management framework and given the rapid escalation of the crisis, Member States responded unilaterally, often generating negative spillovers effects across border (The High-Level Group on Financial Supervision in the EU, 2009).

The heterogeneity of banking supervision practices and the fragmentation of knowledge contributed to the spread of the financial crisis, while also delaying its resolution. The structure of the euro area created an adverse feedback loop between weak banks, heavily indebted sovereigns and fragile economies, resulting in what is known as the European Sovereign Debt Crisis (Cassola et al., 2019).

In essence, before the crises, the EU lacked common financial backstops for either sovereigns or banks, as well as a unified framework for managing and resolving failing banks. Supervision and regulation relied entirely on national frameworks. This incomplete financial architecture left EU countries exposed to adverse interactions between financial instability and sovereign debt, with severe economic consequences for economic growth and the stability of the euro as a whole (Hobelsberger et al., 2022). The Eurozone crisis uncovered the fragility and institutional weaknesses of the EMU, revealing significant shortcomings in the coordination of macroeconomic and fiscal policies, regulatory oversight, and crisis management mechanisms. In response to the crisis and its devastating consequences, the EU launched a series of reforms to address the structural weaknesses inherent in the EMU's original design (Bakir et al, 2021).

The reforms after the 2008-2013 crises

The European financial reform formally started in 2009, following the publication of the de Larosière Report and two key Communications from the European Commission.[1] All three documents

highlighted the urgent need to adopt a unified set of core rules for euro zone Member States and to reshape the institutional framework for financial supervision across the EU (Cassola et al., 2009).

In the aftermath of the crisis, reform efforts focused on strengthening the EU's institutional architecture. On this background, all EU Member States, except for Czech Republic and the United Kingdom, signed the Treaty on Stability, Coordination and Governance, commonly referred as the Fiscal Compact, introducing stricter budgetary rules and deficit constraints. In parallel, the European Semester was established to facilitate policy coordination in areas such as structural reforms, investments strategies, and the correction of macroeconomic imbalances. Subsequently, in December 2011, the Six Pack governance reforms was adopted. These measures introduced sanctions to ensure Member States' compliance with the fiscal rules, reinforced the Stability and Growth Pact by increasing surveillance on national budget and established a debt reduction benchmark. Importantly the Six Pack also introduced the Macroeconomic Imbalances Procedure (MIP), aimed at identifying and addressing critical issues such as persistent current account deficits, unsustainable levels of external debt, declining competitiveness and financial markets excesses. The MIP empowered the European Commission to require corrective actions from Member States deemed to be threatening the stability of the EMU.

Building on this foundation, the subsequent Two-Pack reforms introduced further fiscal coordination tools, including common budgetary rules for Member States and a formalised surveillance mechanisms to ensure stability in the region (Bakir et al, 2021).

The crisis also exposed the need for a radical transformation of financial supervision at the EU level. A key step in this process was the establishment of the European System of Financial Supervision (ESFS), which became operational between the last months of 2010 and early 2011. The ESFS was designed to enhance the quality and consistency of national supervision, strengthen oversight of cross-border financial institutions, and introduce a uniform body of prudential rules applicable across the EU (Papadopoulos, 2014). The ESFS is based on two core elements: a micro-prudential pillar, resulting in the establishment of three new European Supervisory Authorities, the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA); and a second pillar, the macroprudential one, centred around the European Systemic Risk Board (ESRB).

As emphasises in the de Larosière Report, a single EU financial market cannot function effectively without harmonised rules. In this context, institutional reform was accompanied by the development of a Single Rulebook that introduced a unified set of prudential standards binding on all financial institutions across the EU. The Single Rulebook also served to incorporate the post-crisis

reforms developed by the Basel Committee on Banking Supervision (Basel III) into EU law, thereby ensuring consistent implementation across Member States (Cassola et al., 2019).

The Single Rulebook included four key legislative instruments having an impact on financial stability. First, the Capital Requirements Directive regulates access to banking activities and sets out the prudential supervision framework for credit institutions and investment firms. The Capital Requirements Regulation aims to reduce the risk of bank insolvency by imposing stricter capital standards and ensuring uniform application across Member States. The Bank Recovery and Resolution Directive provides national authorities with comprehensive tools and procedure for managing failing banks, including mechanisms for cooperation in cross-border resolution scenarios. Lastly, the Directive on Deposit Guarantee Schemes was introduced to enhance depositor protection and bolster public confidence in the banking system (Cassola et al., 2019).

The Banking Union

The Sovereign Debt Crisis exposed the deep interdependencies between national economies and banking sectors across the euro area. One of the most important manifestations of this was the adverse feedback loop between banks and public finances with weaknesses in the banking sector affecting public finances, while fragile public finances in turn undermined market confidence in banks, especially due to banks' large holdings of domestic sovereign debt (Angeloni, 2015). This vicious cycle revealed the systemic risks inherent in fragmented national oversight and provided the functional rationale for the creation of a Banking Union.

The proposal to create an integrate banking framework first emerged in the 2012 report *Towards a genuine Economic and Monetary Union* by the President of the European Council.[2] In the same year, euro area political leaders asked the European Commission to prepare a legislative proposal for the establishment of a single supervisory authority within the ECB (Angeloni, 2015). Following this initiative, the European Council agreed in 2013 to launch the Single Supervisory Mechanism (SSM), which became operational in November 2014 as part of the ECB. Still today, the SSM remains one of the three foundational pillars of the Banking Union is grounded (Cassola et al., 2019).

The SSM was conceived with the primary goal of ensuring a harmonised and effective supervision of all credit institutions in the euro area, eliminating the discretion previously exercised by national authorities in the application of supervisory standards. To achieve this goal, the SSM is equipped with both microprudential and macroprudential powers, with the latter shared between the ECB and Member States. More specifically, under this mechanism, the ECB directly supervises banks that are classified as “significant” for the stability of the euro based on size and systemic importance

(Angeloni, 2015). As of now, the SSM directly supervises 114 banking entities, while the remainder are supervised by National Competent Authorities under the general oversight of the ECB.[3] To fulfil its supervisory mandate, the SSM is empowered to conduct supervisory reviews, on-site inspections, and investigations, to grant or withdraw banking licences, and to impose capital requirements above the regulatory minimum where necessary (Cassola et al., 2019).

The second pillar of the Banking Union is the Single Resolution Mechanism (SRM), implemented through the Single Resolution Board (SRB). The SRB was created to manage the resolution of failing banks, while minimising the impact on the real economy and on public finances in participating Member States (Angeloni, 2015). Learning from the previous crisis, the SRB was designed as a strong, centralised, and independent authority capable of coordinating resolution actions across jurisdictions. Its aim is to avoid fragmented national actions, limit financial instability, and reduce the need for taxpayer-funded bailouts (Single Resolution Board, 2019). The SRB collaborates closely with NRAs, which are empowered to exercise resolution functions at the national level in accordance with the resolution schemes adopted by the SRB (Single Resolution Board, 2019).

This body started its operational planning in January 2015 and became fully operational, with a complete set of resolution powers, on 1 January 2016. The SRB is responsible for drafting resolution plans for banks under its remits, ensuring that institutions have clear strategies for potential failure that do not destabilise the wider financial system. This includes assessing banks' resolvability and addressing any obstacles that might hinder effective resolution. As for the SSM, the SRB's authority covers significant institutions directly supervised by the ECB, as well as cross-border banking groups with parent and subsidiary entities located in at least two different participating Member States of the Banking Union (Single Resolution Board, 2019). As of 2 July 2025, there are 114 banks and four other cross-border groups under SRB's remits.[4]

The third pillar of the Banking Union, the European Deposit Insurance Scheme, remains incomplete. The European Commission proposed the European Deposit and Insurance Scheme (EDIS) in November 2015 with the goal of creating a common safety net for deposit protection across the euro area (Angeloni, 2015). The purpose of EDIS is to reinforce depositors' confidence, regardless of a bank's national origin, and to help sever the link between banks and their sovereigns by reducing reliance on national DGS. In this regard, the EDIS was envisioned to gradually complement and eventually replace national DGSs, with full mutualisation of deposit insurance risks initially planned for 2024. However, the proposal has stalled in its first phase due to political resistance, particularly from northern Member States, who are reluctant to share deposit insurance risk with countries whose banking sectors remain more exposed to sovereign debt (Fernandez-Aguado et al., 2024). These

concerns are primarily centred around moral hazard and the fear that countries with weaker banking system would disproportionately benefit (Quaglia, 2019).

The most recent draft of the proposal envisions a phased approach. In the initial phase, EDIS would provide liquidity to support national DGSs, with this phase expected to begin in 2025 and last no more than three years. Following this period, EDIS would assume full responsibility for depositor protection across the Banking Union. However, this transition would be conditional upon the implementation of parallel risk-reduction measures in the financial sector. Under the current proposal, contributions to the EDIS fund would be based not on a bank's national affiliation, but on its risk profile relative to other banks in the Union. Contributions would be calculated according to the volume of covered deposits and the institution's systemic risk profile, in line with guidelines issued by the European Banking Authority (Fernandez-Aguado et al., 2024).

The Covid-19

The Covid-19 crisis hit the euro zone almost exactly one decade after the 2010s sovereign debt crisis, which threatened the existence of the euro itself. Even though the initial economic shock of the COVID-19 crisis was much larger than that of 2010, a bond market panic mirroring that of the euro area crisis was prevented, and a replay of the crisis of the 2010s such scenario did not materialise.

Arguably, one of the reasons for the more benign outcome during the Covid-19 crisis have been the changes in the euro area institutional framework since 2010 (Dullien, 2022). So, this first hypothesis posits that the answer to the question *why Europe did not experience a second sovereign debt crisis in the 2020s can* be found in the reforms implemented in the decade following the euro area crisis.

Hypothesis 2: Policy Learning and Shifts in Policymakers' Attitudes

A second debate relevant for the present analysis regards whether the EU's response to the Covid-19 shock has been the result of a learning process started during the 2010s sovereign debt crisis. A growing literature argues that the euro-area authorities internalised lessons from the sovereign debt crisis, and as a result, acted faster and more coordinated in 2020, preventing escalation. In this view, the prior crisis functioned as a critical juncture that created path-dependent routines (Capoccia and Kelemen, 2007). On this line, Ladi and Tsarouhas (2020) and Radaelli (2022) argue that decision-makers translated prior experiences into operational playbooks for the pandemic. Notably, EU policymakers broke with the EMU's original no-risk sharing taboo, endorsing joint

borrowing and broader fiscal-monetary coordination, notably the ECB's PEPP, the activation of the SGP's generale clause, the launch of SURE and the NGEU.

Other accounts question the pure learning thesis, noting early communication missteps, for example the "not here to close spreads" (Lagarde, 2020a) and initially limited EU steering capacity. All this suggest ad-hoc crisis management rather than a settled paradigm. The failing forward scholarship sees Covid responses as partial, crisis-driven fixes with incomplete institutionalisation, even if effective in the short run, not proof of durable behavioural change.

Against this background, Hypothesis 2 posits that shifts in policymakers' attitudes after the Sovereign Debt Crisis enabled swift and coordinated action in 2020, effectively damping the sovereign-bank feedback loop and avoiding a second sovereign debt crisis.

The Eurozone Sovereign Debt Crisis

The Eurozone crisis started in late 2009, when the Greek government disclosed that Greece had lied about its public deficit for years and disclosed a budget deficit much larger that had previously reported. Spreads on Greek bonds surged, and soon the Greek government found itself unable to service its debt. In the following months panic spread across markets and the crisis spread to other Eurozone countries, mainly peripheral governments heavily in debt to other Eurozone governments and EU institutions. As fears of imminent sovereign default spread across peripheral European economies, the central concern of European heads of state was who would ultimately bear the costs of accumulated debt (Frieden and Walter, 2017).

The Eurozone faced an unexpected situation, but a crisis management mechanism did not exist, the Maastricht framework had excluded any co-responsibility for public debt, making euro are governments individually accountable for the debt they issued. Article 125 of the Treaty on the Functioning of the European Union explicitly prohibits the Union or any of the member states from assuming responsibility for the debt of any another state. [2] Yet the Treaties contained no provisions for the eventuality of a euro area sovereign losing market access. When it became clear that Greece would be unable to refinance its debt, the institutional gap resulted into significant ambiguity in the interpretation of the Treaties' principles (Pisani-Ferry, 2012).

Consequently, the European response to the crisis was painfully slow and largely insufficient, with one-half measure followed by another (Hall, 2012). Europe's heads of states and government published their first statement on Greece on 11 February 2010, four months after George Papandreou's revelation regarding the state of its country's public finances. By that time, markets were getting nervous and the spread between Greek and German 10-year bonds had risen from 2% to 4%. Greece had already asked the International Monetary Fund (IMF) for financial assistance, but no

financial assistance could be provided without the prior consent of the other euro-area countries. It was in this moment that the fragmentation of the euro zone started emerging, as euro members were extremely divided on how to proceed, with a group led by Angela Merkel pushing for the IMF intervention, and a second group led by Nicolas Sarkozy favouring a purely European solution (Pisani-Ferry, 2014).

The statement from the EU leaders proved insufficient to reassure the markets as it gave the impression that heads of state were trying to minimise the problem since they were unable to agree on whether to provide financial assistance to Greece, who should provide such assistance and how much money would be needed. Europe's leaders gathered again on the March 25, 2010, and declared that coordinated bilateral loans would be made available to Greece, complemented by IMF financing available only in last resort and under the unanimity of all the euro-area member states. Once again markets were not convinced and understood the decision as the confirmation that Europe had understood that Greece needed outside help but remained reluctant to provide it. A real action to support Greece arrived only at the Beginning of May, the Eurogroup announced a rescue package for Greece amounting to €110 billion, followed by similar rescues for Ireland and Portugal in November 2010 and May 2011 (Hall, 2012).

By then the spread between Greek and German 10-year government bonds had risen to 10%, and the Irish and Portuguese spreads had reached the level of Greek spreads three months earlier. After months of uncoordinated and fragmented attempts to react to the crisis, euro area leaders announced the creation of the European Financial Stability Facility (EFSF), with a total volume of up to €500 billion, of which €60 billion is assigned to a community mechanism, the EFSM. At the same time, the ECB announced exceptional measures, including secondary markets sovereign debt purchases (Pisani-Ferry, 2014).

Seven months had passed between George Papandreou's revelation and the agreement of European leaders on a tentative solution, and if for the standards of European diplomacy seven months is a very short time, for financial markets seven months was too long, certainly long enough to erode the credibility of the European institutions. This pattern of uncertainty and delays is one of the recurring themes of the European debt crisis, markets needed strong and clear statements, but all they got was vague and confusing declarations (Pisani-Ferry, 2014).

On this background, crisis management was dominated by hard bargaining, with governments primarily seeking to shift the costs of preserving the euro onto others (Schimmelfennig, 2015). Each interaction between debtor and creditor states turned into a political debate, with solvent northern governments trying to minimise their financial commitments and insisting on strict financial adjustment, while indebted southern economies attempted to postpone painful reforms

(Schimmelfennig, 2015). Ultimately, the burden of adjustment fell disproportionately on the debtor countries. The GIIPS economies (Greece, Ireland, Italy, Portugal and Spain) experienced dramatic increases in unemployment and heavy GDP contractions, with GDP levels falling back to the levels of when the Eurozone was founded (Blyth, 2013). Moreover, these countries were forced into unprecedent austerity: Greece was forced to attempt one of the most drastic programmes of fiscal austerity in modern history aimed at reducing its budget deficit by eleven percentage points of GDP within three years, Ireland was required to reduce its budget deficit by nine percentage points of GDP in five years, and Portugal by six percentage points in three years. In addition, the EU demanded a serious acceleration in structural reforms (Hall, 2014). Conversely, the economic cost of the crisis has been much smaller of even non-existent in the creditor states, at least through 2012 (Frieden and Walter, 2017).

Ex post, it can be argued that the initial EU response to the crisis failed to restore market confidence and likely proved costlier than earlier and more decisive action. At its core, the 2009 episode was a confidence crisis, the priority in response should have been to convince markets that sovereign default was off the table. The most powerful signal would have been an explicit commitment to unlimited sovereign bond purchase by the ECB. A second best-option was for member states to guarantee Greek and Irish debt. These steps would have been radical, and politically difficult to agree at speed, yet the alternative proved both more expensive and less effective (Hall, 2012).

The Covid-19 Crisis

In stark contrast, the Covid-19 crisis in early 2020 triggered a swift and coordinated European response, reflecting lessons learned from the past. During the Eurozone crisis nationally framed preferences dominated EU policymaking, while in the pandemic Member States acknowledged their interdependence and the need of coordination. A renewed sense of solidarity led to consistent calls for European risk and burden sharing, which translated into concrete measures (Genschel and Jachtenfuchs, 2021). As early as January 2020, the EU coordinated health measures, and by March 2020 financial instruments were being mobilised (Deruelle, 2022). Within a week of the WHO declaring Covid-19 a pandemic, ECB President Christine Lagarde announced the Pandemic Emergency Purchase Programme (PEPP), a temporary asset purchase programme for private and public securities, mobilising 750 billion (ECB, 2020). A few days after, the European Commission proposed activating the Stability and Growth Pact's escape clause, allowing Member States to deviate from EU fiscal rules and adopt exceptional budgetary measures considering the circumstances (European Commission, 2020). Treating the coronavirus as an exceptional occurrence, the Ecofin

Council endorsed the Commission's proposal of the Commission, marking a clear departure from the previous "governance by rules and numbers" approach used during the Eurozone crisis.

As the magnitude of the crisis increased, new instruments were rapidly deployed. In April, the Commission proposed a draft regulation establishing the Support to mitigate Unemployment Risks in an Emergency (SURE), a temporary tool to help Member States protect employment, which the Council approved with broad consensus (European Council, 2020). Also in April 2020, the Eurogroup agreed that the European Stability Mechanism would provide Pandemic Crisis Support, a credit line of up to 2% of GDP aimed at directly financing healthcare, treatment and prevention costs related to the pandemic (European Council, 2020a).

Unlike during the Eurozone crisis, these funds were not subject to harsh conditionality, the Troika-style requirements imposed on debtor states in the 2010s disappeared. (Fasone and Lindseth, 2020). Negotiations focused on the distribution of support, grants versus loans, rather than on austerity measures.

At the end of May 2020, the European Commission proposed the Next Generation EU, a plan of €750 billion, with €500 billion in grants and €250 billion in loans to be repaid by 2058 at the latest. Political negotiations concluded at the European Council of 17-21 July 2020, where leaders maintained the €750 billion funded by EU borrowing under the MFF, but the distribution resulted in €390 billion in grants and €360 billion in loans (Fasone and Lindseth, 2020).

Germany's position epitomised this shift. Previously a firm supporter of austerity during the 2010s, Chancellor Angela Merkel, together with President Emmanuel Macron, proposed a debt-financed, grants-based fund to support Member States facing the socio-economic consequences of the pandemic. This initiative, ultimately realised as NGEU, marked a fundamental departure from the punitive, creditor-driven policies of the Eurozone crisis (Fasone and Lindseth, 2020).

In sum, the contrast between the hesitant and fragmented response of 2010-12 and the fast and coordinated stance of 2020 supports hypothesis 2, meaning that accumulated policy learning and a shift toward solidarity materially weakened the sovereign-bank feedback loop.

Hypothesis 3: Market Perceptions and the Nature of the Shock

A third strand of debate asks whether market perceptions and the nature of the shock explain why dynamics in 2010-12 and 2020 diverged. Behavioural finance research has long demonstrated that investor biases (systematic judgment errors such as overconfidence and loss aversion), herd behaviour (imitation under uncertainty), and emotional contagion (rapid spread of fear or euphoria) can intensify market instability independently of economic fundamentals (Edelen et al., 2010; Sahi

and Kaur, 2024). Empirically, sentiment strongly predicts volatility across assets, including sovereign bonds, during both episodes (Maghyereh and Abdoh, 2022), and crises often trigger collective behaviour that magnifies downturns (Wang et al., 2025). For the euro area, De Grauwe and Ji (2013, 2015) argue that 2010-2012 surging sovereign spreads reflected market panic and not deteriorating fiscal fundamentals.

On the opposite side, Beirne and Fratzscher (2013) find that the price of sovereign risk has been much more sensitive to fundamentals and that fundamentals mainly explain sovereign risk movements during the 2008-2011 crisis, with market sentiment only playing a marginal role.

Parallel work stresses the unique nature of the Covid-19 shock, portraying it as an exogenous, non-financial and largely symmetric event across the euro area member states. This framing is often linked to the argument that market panic was contained because the pandemic did not originate from within the financial system and did not immediately target specific, fiscally vulnerable countries, unlike the asymmetric and endogenous dynamics of the 2010s sovereign debt crisis (Baldwin and Di Mauro, 2020; Lane, 2020). As a result, investors perceived Covid-19 as a common external shock and market sentiment did not spiral into a sovereign-bank doom loop as in 2010s. This framework explains the third hypothesis presented in this dissertation, arguing that the Eurozone did not experience a second sovereign debt crisis in 2020, despite banks presented similar exposures to sovereign debt, because the nature of the shock allowed for a different framing that stopped the feedback loop between the banking and the sovereign sector.

The Sovereign Debt Crisis

The financial contagion literature highlights multiple channels through which shocks spread across markets, among those investor sentiment and market psychology are fundamental (Bouteska et al., 2025).

Since the intensification of the financial crisis in September 2008 up to the end of March 2009, long-term government bond yield spreads relative to Germany increased dramatically for most euro-area countries. This surge in sovereign bond yield spreads reflected increasing concerns in financial markets about some governments' capacity to meet their future debt obligations (Attinasi et al., 2009). Investors did not simply react to deteriorating fundaments; rather, they responded disproportionately to negative sentiment and heightened perception of sovereign default risk in individual countries (De Grauwe and Ji, 2015). A key feature of the 2010s sovereign debt crisis was precisely this growing sensitivity of market pricing to national fundamentals. As the crisis unfolded, sovereign bonds spreads became increasingly determined by country specific debt and deficit indicators, with investors penalising weaker fiscal position far more harshly than before (Beirne and Fratzscher, 2013). The result was an environment in which even modest differences in fiscal indicators were magnified into

signals of systemic vulnerabilities. Countries with relatively higher deficits or debt burdens found themselves facing disproportionately higher borrowing costs, while fiscally stronger countries were rewarded with flight to safety inflows. For instance, once Greece revealed the true extent of its fiscal deficit in late 2009, negative sentiment quickly spread to other GIPS countries, even if their fiscal position were not fundamentally worse than those of other advanced economies such as the US or the UK, that did not experience similar crises (de Grauwe and Ji, 2013). Market participants looked at national debt and deficit levels as key indicators of vulnerability, and those countries with weaker fiscal fundamentals faced the sharpest increases in spreads (Czeczeli et al., 2020).

In this context, shifts in sentiment transcended national borders, depressing stock prices and sovereign bond markets even in countries whose economic conditions remained relatively sound. This dynamic was exacerbated by the semi-exogenous nature of the Eurozone crisis. While the shock was triggered by the global financial turmoil of 2008, its escalation within the Eurozone was widely perceived as the result of endogenous deficiencies, like the structural fragility of the EMU and the fiscal mismanagement of certain Member States (Bouteska et al., 2025). Consequently, the Eurozone crisis was framed as a problem of national responsibility rather than a common external threat to address, this framing reinforced a fragmented logic of blame and punishment. Once markets focused on the fiscal weaknesses of individual governments, euro-area sovereign debt lost its character as relatively homogeneous assets class and became a spectrum of national risks. The result was a widening gap between "core" and "periphery" countries, which not only drove up financing prices for the latter, but also undermined confidence in the irreversibility of the monetary union itself.

The Covid-19 Crisis

By contrast, the Covid-19 crisis was framed since the beginning as a fully exogenous shock comparable to a natural disaster, its origins were in fact entirely independent of governments or financial institutions' prior behaviour (Czeczeli et al., 2020). The pandemic struck all Eurozone economies simultaneously, regardless of their underlying fiscal conditions, and therefore differences in debt or deficit positions had little explanatory power for short-term market outcomes (Fasone and Lindseth, 2020). In the early months of 2020, sovereign spreads rose sharply across the euro area, however, this trend regarded the whole monetary union rather than concentrated on fiscally weaker Member States, and largely disappeared following the ECB's March 12 intervention, indicating a collective repricing of euro-area risk rather than selective punishment of fiscally weaker countries (Ortmans and Tripier, 2021). In this context, investor sentiment did not single out individual Member States as responsible for the crisis but rather acknowledged a shared external threat requiring

collective response. This framing mattered as, unlike during the Eurozone sovereign debt crisis, when market attention to fundamentals amplified contagion, the pandemic's exogenous and symmetric nature limited panic-driven contagion and preserved confidence in the cohesion of the monetary union.

Taken together, this comparison highlights how the framing of shock shaped market sentiment in fundamentally different ways across the two crises. Hypothesis 3 therefore posits that it was the distinct nature and framing of the Covid-19 crisis that explains why the euro area did not experience a second sovereign debt crisis in 2020s.

Conclusion

This chapter has introduced the three hypotheses that will guide the empirical investigation of this dissertation. Building on academic research about institutional reforms, policy learning and market perceptions, it has outlined competing explanation for why the euro area did not experience a second sovereign debt crisis in 2020s, despite conditions that appeared strikingly similar to those of the 2010s. Each hypothesis has been grounded in its respective academic debate, and its causal logic has been explained.

The next chapter will move from the theory to practice by outlining the methodology and research design. It will explain how the three hypotheses suggested will be tested, specify the comparative approach between the two periods, and justify the choice of indicators and data sources that will structure the empirical analysis.

Research Methodology: A Mixed-Method approach.

Introduction

This chapter outlines the research methodology that has been employed in the writing process of this dissertation. As explained in the previous chapter, this dissertation aims to find an answer to this question: "*Why did Europe not experience a second sovereign debt crisis in the 2020s, despite condition that closely mirrored those of the 2010s?"*.

To find such answer, this research adopts a mixed-methods approach as it provides us with qualitative expert's perspectives and quantitative data sources both at the same time, permitting our analysis to tackle specific issue areas from multiple perspectives (Creswell & Plano Clark, 2011).

Research method

This research employs a mixed-methods approach to develop a comprehensive and robust understanding of the evolution of the sovereign-bank nexus over the past fifteen years. The dissertation is structured as a comparative case study that integrates quantitative data collection with qualitative analysis.

At its core, the dissertation compares two critical episodes in the euro area, the European sovereign debt crisis that struck the eurozone between 2009 and 2013 and the economic crisis triggered by the Covid-19 pandemic in the 2020s. The primary goal is to identify the factors, or combination of factors, that prevented the Eurozone from experiencing a second sovereign debt crisis, despite macroeconomic conditions that, in many aspects, mirrored those of 2010s. The comparison focuses on three main dimensions. Firstly, the evolution of European institutions and key reforms is examined, providing a detailed assessment of the regulatory and supervisory frameworks in place before the 2010s crisis compared to the structures established by the time Covid-19 shock occurred. Second, the study analyses the behavioural approaches of policymakers, considering how strategic decisions and coordination during the two crises may have influenced outcomes. Finally, it investigates market perceptions and reactions, assessing how the crises were interpreted by investors and financial actors, with particular attention to the different origin and nature of the Covid-19 shock compared to the 2010s sovereign debt crisis.

The Quantitative Analysis

The first part of the dissertation employs quantitative data analysis to demonstrate that the exposure of euro area banks to sovereign debt in 2020s was comparable to that observed during the

sovereign debt crisis of the 2010s. The analysis focuses on four Southern European economies, namely Greece, Italy, Portugal and Spain, henceforth referred to as GIPS countries. The decision to focus on these cases is grounded on their central role during the sovereign debt crisis of the early 2010s. That crisis originated in Greece and rapidly spread to the other GIPS countries, severely destabilising their banking systems and sovereign financing conditions. At different stages, all four either required external financial assistance or faced intense market pressure. Moreover, their banking sectors exhibited similar contagion dynamics, which makes them particularly relevant for assessing how the sovereign-bank nexus has evolved in the years following the crisis.

The dataset built for this background analysis comprises three main variables of interest:

- Total exposure of domestic banking sectors to sovereign debt in the GIPS countries, which provides an aggregate picture of the extent to which banks remained dependent on sovereign securities.
- Degree of home bias, measured as the share of each national banking sector's exposure to its own government's debt relative to its total sovereign debt holdings. This variable captures the extent to which banks concentrated their sovereign portfolios in domestic rather than foreign debt, a key mechanism behind the doom loop of the 2010s sovereign debt crisis.
- Monthly sovereign exposure of the euro area banking sector between December 2019 and October 2022. Unlike the rest of the data, which is available on a yearly basis, this component provides monthly observations, thereby offering a more precise picture of the evolution of developments during a highly volatile Covid-19 period.

To facilitate interpretation, these data have been systematised into tables and subsequently visualised in graphs. The figures are employed in Chapter 1 to illustrate the persistence of sovereign exposures, while the underlying tables are presented in the Appendix to ensure transparency and replicability.

The data have been sources from a combination of reliable institutional databases and supervisory disclosures, specifically the European Central Bank's Statistical Data Warehouse, and the European Banking Authority's (EBA) stress tests and EU-wide transparency exercises covering the period from 2010 to 2023. For the purposes of this dissertation, the analysis relies on country-aggregates results from these exercises, specifically the aggregated exposure of each national banking sector to the sovereign debt of domestic and foreign governments between 2013 and 2023.

For years preceding the introduction of the EBA's transparency exercises, namely 2010-2012, the dataset has been reconstructed using earlier supervisory initiatives, including the 2010 CEBS' stress test, the 2011 EBA's stress test and capital exercise and the 2012 capital exercise. These earlier

exercises provide the only consistent and comparable sources of information on sovereign exposure prior to the establishment of regular EBA disclosures.

Taken together, these sources provide a coherent picture of banks' sovereign exposures in the GIPS countries over more a decade. They show that the levels of exposure in the 2020s were comparable to those observed during the sovereign debt crisis of the 2010s. This confirms the persistence of a key vulnerability behind the earlier crisis, but the absence of a similar crisis in 2020 suggests that while such exposures were a necessary condition, they were not sufficient on their own. This finding provides the empirical foundation for subsequent quantitative analysis, which investigates the institutional, political and regulatory factors that help explain the divergence in outcomes between the two crises.

The Qualitative Analysis

While the quantitative analysis establishes the persistence of high sovereign exposures across euro area banks, it does not explain the divergence in outcomes between the sovereign debt crisis of the 2010s and the Covid-19 crisis of the 2020s. To address this gap, the dissertation employs a qualitative comparative analysis of the two crises. The qualitative component focuses on institutional and regulatory frameworks, the role of the lessons learned from the 2010s in shaping policy responses, the behaviour of policymakers, and the differences in crisis trigger and market reactions. The evidence is drawn from official EU and euro area policy documents, ECB and EBA communications, reports from the European Commission and Council, secondary academic literature and financial media.

The choice of a mixed method approach reflects the nature of the research problem. As Creswell and Plano Clark (2011) argue, mixed methods are particularly appropriate when one source of data is insufficient to capture the complexity of a phenomenon. Quantitative analysis provides generalisable descriptions of relationships between variables, but it lacks the interpretive depth needed to understand why those relationships produce different outcome across cases. In contrast, qualitative analysis can uncover institutional dynamics, policy learning and causal mechanisms that lie beneath the statistical patterns. By integrating the two, this study leverages the explanatory power of both, thereby strengthening the validity of its findings and allowing it to address the core question form multiple perspectives.

The qualitative analysis is operationalised through process tracing, an appropriate method to identify and test causal mechanisms in case-based research. Process tracing allows the researcher to draw both descriptive and causal inferences from diagnostic evidence situated within a temporal sequence of events. Although primarily a qualitative tool, it can incorporate quantitative information

when relevant. A central feature of process tracing is the use of empirical tests to evaluate competing hypotheses. Collier (2011) distinguishes four such tests, defined by whether passing the test is necessary and/or sufficient to support a hypothesis (Collier, 2011). These are the *straw-in-the-wind, hoop, smoking gun, and doubly decisive* tests (see Table 1). Passing a straw-in-the-wind test slightly strengthens the hypothesis; while failing it slightly weakens it, without being decisive. A hoop test is necessary but not sufficient, meaning that passing keeps the hypothesis viable; while failing eliminates it. A smoking-gun test is sufficient but not necessary, passing strongly confirms the hypothesis and weakens rivals, while failing only weakens the hypothesis itself. Finally, a double decisive test is both necessary and sufficient, passing confirms the hypothesis and eliminates rivals, while failing eliminates it altogether.

Table 2: Empirical Tests in Process Tracing

Table 1

Process Tracing Tests for Causal Inference

		SUFFICIENT FOR AFFIRMING CAUSAL INFERENCE	
		No	Yes
NECESSARY FOR AFFIRMING CAUSAL INFERENCE	No	**1. Straw-in-the-Wind**	**3. Smoking-Gun**
		a. Passing: Affirms relevance of hypothesis, but does not confirm it.	**a. Passing:** Confirms hypothesis.
		b. Failing: Hypothesis is not eliminated, but is slightly weakened.	**b. Failing:** Hypothesis is not eliminated, but is somewhat weakened.
		c. Implications for rival hypotheses: **Passing** *slightly* weakens them. **Failing** *slightly* strengthens them.	**c. Implications for rival hypotheses:** **Passing** *substantially* weakens them. **Failing** *somewhat* strengthens them.
	Yes	**2. Hoop**	**4. Doubly Decisive**
		a. Passing: Affirms relevance of hypothesis, but does not confirm it.	**a. Passing:** Confirms hypothesis and eliminates others.
		b. Failing: Eliminates hypothesis.	**b. Failing:** Eliminates hypothesis.
		c. Implications for rival hypotheses: **Passing** *somewhat* weakens them. **Failing** *somewhat* strengthens them.	**c. Implications for rival hypotheses:** **Passing** *eliminates* them. **Failing** *substantially* strengthens.

Source: Collier, 2011

As a tool of causal inference, process tracing focuses on the unfolding of events over time. However, such unfolding cannot be understood without precise description of events or situations at specific points in time. Thus, its descriptive dimension begins with accurate snapshots of key moments, which are then linked to reveal causal sequences. The analytical focus is on understanding the processes by which causes generate outcomes. Process tracing can be used to build or test theories of causal mechanisms. In the latter case, it requires an initial theorisation of the causal process, followed by the identification of observable manifestations that can be traced empirically in each case (Beach, 2018).

In this dissertation, process tracing has been applied to evaluate competing explanations for why the Eurozone did not experience a second sovereign debt crisis during the Covid-19 pandemic. To this end, three initial hypotheses were formulated and subsequently tested using the logic of process tracing. The following table (Table 2) summarises the application of this method to each hypothesis, presenting the claim, source of evidence, type of test applied and whether the results support or weaken the hypothesis.

Table 3: Application of Process Tracing to the Three Hypothesis

Hypothesis 1: Institutional Reforms and Structural Change

Step in Mechanism	Claim	Evidence Source	What it Shows	Test type	Support Thesis?
Reform Adopted	EU centralised banking supervision through the SSM	Council Regulation (EU) 1024/2013	Legal text confirms transfer of supervisory powers to the ECB	Hoop (necessary)	Yes
Implementation	ECB applied harmonised supervisory practices	ECB SREP Report (2016)	Shows uniform supervisory standards applied across the Eurozone banks	Hoop (necessary)	Yes
Outcome	Sovereign-bank nexus structurally weakened	S&P Global Ratings (2023); Fitch (2020); Veron, 2017 EBA data on EU banks' sovereign exposure	Market evidence shows banks still dependent on preferential treatment of sovereign debt; reforms did not remove structural vulnerabilities	Smoking gun (sufficient)	No

Hypothesis 2: Policy Learning and Shifts in Policymakers' Attitudes

Step in Mechanism	Claim	Evidence Source	What it Shows	Test type	Support Thesis?
Baseline (Eurozone crisis policymaking)	Policymaking during the Eurozone crisis was hesitant, fragmented, and austerity-driven	European Council statements 2010a; 2010b; Guardian (Inman & Pratley, 2010); FT (Oakley & Atkins, 2010); Data on GIPS sovereign bond spreads in 2010s.	EU response was delayed, fragmented, and failed to reassure markets, feeding market panic	Straw-in-the-wind	Yes
Shift in attitudes post-crisis	Policymakers internalised lessons and shifted towards solidarity-	European Council/Eurogroup, 2020; Commission (SURE/NGEU); ECB (PEPP)	Rapid and coordinated policy response prioritising solidarity and growth	Hoop (necessary)	Yes

	based, proactive action				
New policymaking action (Covid response)	EU applied unprecedented solidarity-based measures (PEEP, SURE, NGEU)	ECB (2020); Eurogroup 2020; Commission 2020	Crisis measures showed policymakers had genuinely shifted their approach	Hoop (necessary)/Smoking-gun (sufficient)	Yes
Outcome	Market spreads stabilised following ECB & EU action	ECB (20202); Bruegel (2022); LSE Report (2020); Data on GIPS sovereign bond spreads 2019-2021.	Market confidence restored, sovereign debt panic avoided	Smoking-gun (sufficient)	Yes

Hypothesis 3: Market Perceptions and the Nature of the Shock

Step in Mechanism	Claim	Evidence Source	What it Shows	Test type	Support Thesis?
Baseline (Eurozone crisis framing)	2010 crisis framed as national responsibility, not collective challenge	Merkel Speech (2010); Franco-German Declaration (2010); Reuters (2010); Kaitatzi-Whitlock (2014); Liu (2014).	Framing fuelled market panic and contagion	Straw-in-the-wind	Yes
Covid-19 framing	Covid framed as exogenous, symmetric shock, no blame on national policies	European Council (2020); European Commission (2020); ECB (2022)	Policymakers rejected moral hazard framing; markets reassured	Hoop (necessary)	Yes
Outcome	Market stabilised despite record debt	Pancotto et al. (2023); ECB (2022); Van Riet (2021); Corradin et al. (2021).	Investor panic avoided, sovereign-bank nexus contained	Smoking-gun (sufficient)	Yes

This table provides a structured overview of the hypotheses, the supporting evidence, and the types of empirical tests applied. While it serves as a methodological roadmap, the detailed discussion and interpretation of each hypothesis will be undertaken in the following chapter.

Conclusion

This chapter has outlined the methodological framework underpinning the dissertation. The research problem, understanding why Europe did not experience a second sovereign crisis in the 2020s despite conditions that closely mirrored those of the 2010s, requires both qualitative and quantitative analysis. For this reason, a mixed-method design has been adopted, combining quantitative analysis on banks' sovereign exposures with qualitative investigation of institutional, political and market dynamics.

The quantitative analysis established that the exposures in the 2020s were comparable to those of the 2010s, while the qualitative component will employ process tracing to test hypotheses on institutional reform, policy learning and market perceptions.

By integrating statistical evidence and qualitative causal inference, this dissertation seeks to strengthen both the explanatory power and the validity of its findings. The following chapter applies process tracing to the empirical analysis and evaluates the hypotheses considering the available evidence.

Chapter 4: Testing the Three Hypotheses.

Introduction

This fourth chapter has the main goal of testing the three hypotheses proposed to answer the core question of this dissertation. For each hypothesis, the analysis follows the process-tracing model outlined in the research methodology chapter, combining hoop tests, smoking-gun tests and straw in the wind tests to assess the strength of the causal mechanisms proposed. The empirical analysis draws on a wide range of primary and secondary sources, including EU and ECB official documents, Council regulations, supervisory reports and speeches, as well as market analyses, sovereign exposure data and academic literature.

By combining institutional documents, market indicators and academic research, this chapter creates a robust evidentiary basis for tracing the processes behind the Eurozone's resilience during the Covid-19 crisis.

Hypothesis 1: Institutional Reforms and Structural Change

This section tests the first hypothesis, arguing that institutional reforms implemented after the 2010s Eurozone crisis, most notably the Single Rulebook and the Banking Union, prevented a second sovereign debt crisis in the 2020s. The proposed casual mechanism unfolds in three steps, starting from the legal adoption of the Single Rulebook and the Banking Union with its SSM and SRM, then the implementation of these reforms through harmonised supervisory practices, and their observed effects on the sovereign-bank nexus during Covid-19 shock. To assess whether these reforms structurally reduced vulnerabilities, the analysis draws on EU and ECB documents, supervisory assessments, market analyses and data on sovereign exposures.

The mechanism begins with the adoption of post-crisis. Council Regulation 1020/2013 (2013), adopted in October 2013, granted the ECB centralised supervisory authority over Eurozone credit institutions, replacing fragmented national oversight with a single and centralised EU-level framework. This constitutes a hoop test, meaning that this first hypothesis cannot hold without this transfer of supervisory powers. However, the regulation's adoption alone is not sufficient to confirm that the sovereign-bank nexus was materially weakened.

The next step concerns implementation. The Supervisory Review and Evaluation Process (SREP) illustrates the operationalisation of the ECB supervisory powers. The 2016 SREP, conducted only three years after the legal establishment of the Banking Union, assessed banks' business models, governance, risk management, capital and liquidity (ECB Banking Supervision, 2016). This provides a second hoop test, showing that reforms had been translated into harmonised supervisory practices,

thereby reducing contagion risks by requiring banks to strengthen buffers and making resolution more credible.

Finally, the decisive question is whether these reforms were sufficient to explain the Eurozone's resilience in 2020. If institutional and regulatory reforms were the decisive factor enabling the Eurozone to avoid a second sovereign debt crisis during the pandemic, then post-2020 evidence should demonstrate a structural weakening of the sovereign-bank nexus. However, here evidence points to persistent vulnerabilities. A 2023 S&P assessment shows that if sovereign exposures were risk-weighted, European banks' CET1 (Common Equity Tier 1) ratios, the highest quality form of bank capital that absorbs losses, would fall dramatically, with some requiring up to €48 billion in additional capital (S&P Global Ratings, 2023). Similarly, Fitch (2020) highlights that the policies implemented during the pandemic to support European economies encouraged so called carry trades, in which banks borrow cheaply (often at near-zero rates provided by the ECB) and reinvest in higher-yielding sovereign bonds, particularly in those of fiscally weaker Member States (Acharya and Steffen, 2015). While profitable in the short term, such strategies deepen banks' exposure to sovereign risk and reinforce the sovereign-bank interdependence that reforms sought to weaken. Crucially these dynamics persist because of preferential regulatory treatment of sovereign exposure, as under EU prudential rules, sovereign bonds issues in domestic currency by Member States continue to receive a zero risk-weigh in banks' capital calculations, meaning that banks do not need to hold extra capital against the possibility of default of these bonds, and are exempt from large exposure limits, rules that normally restrict excessive concentration of assets with a single borrower. This means that banks can still hold concentrated portfolios of their own sovereign's debt without facing higher capital requirements or regulatory penalties (Veron, 2017). Such privileges give banks powerful incentives to maintain large sovereign holdings, ensuring that their balance sheets remain structurally tied to the fiscal health of their governments.

The persistence of these dynamics is demonstrated by the evolution of banks' sovereign exposures in Greece, Italy, Portugal and Spain. The table below, shows both the total volume of sovereign debt held by banks (in green) and the share of that exposure concentrated in their own domestic sovereign (in blue).

Table 4: Sovereign Debt Exposures of Banks in GIPS Countries in € million (2019-2022)

GREECE			
Year	**Total Exposure**	**Home Exposure**	**% Home Exposure**
2019	25.397	17.057	67%

2020	34.659	24.127	70%
2021	43.963	31.540	72%
2022	44.252	30.524	69%
ITALY			
Year	**Total Exposure**	**Home Exposure**	**% Home Exposure**
2019	356.299	260.380	73%
2020	414.448	291.071	70%
2021	430.221	301.335	70%
2022	368.814	297.249	81%
PORTUGAL			
Year	**Total Exposure**	**Home Exposure**	**% Home Exposure**
2019	51.556	31.030	60%
2020	61.022	34.734	57%
2021	52.873	28.413	54%
2022	46.538	25.727	55%
SPAIN			
Year	**Total Exposure**	**Home Exposure**	**% Home Exposure**
2019	327.492	240.206	73%
2020	312.627	238.062	76%
2021	323.934	257.054	79%
2022	350.816	260.930	74%

Source: Author's elaboration based on EBA data.

The consistently high levels of home bias, demonstrate that banks remain structurally tied to the fiscal health of their governments. Far from decoupling bank balance sheets from sovereign risk, the data reveal a continued sovereign-bank nexus that preserves the structural vulnerabilities of the Eurozone. In this sense, the post-crisis reforms of the 2010s did not dismantle the regulatory incentives underpinning the sovereign-bank loop. This evidence, therefore, amounts to a failed smoking gun test, suggesting that the Eurozone's resilience in 2020 cannot be explained by the success of institutional reforms.

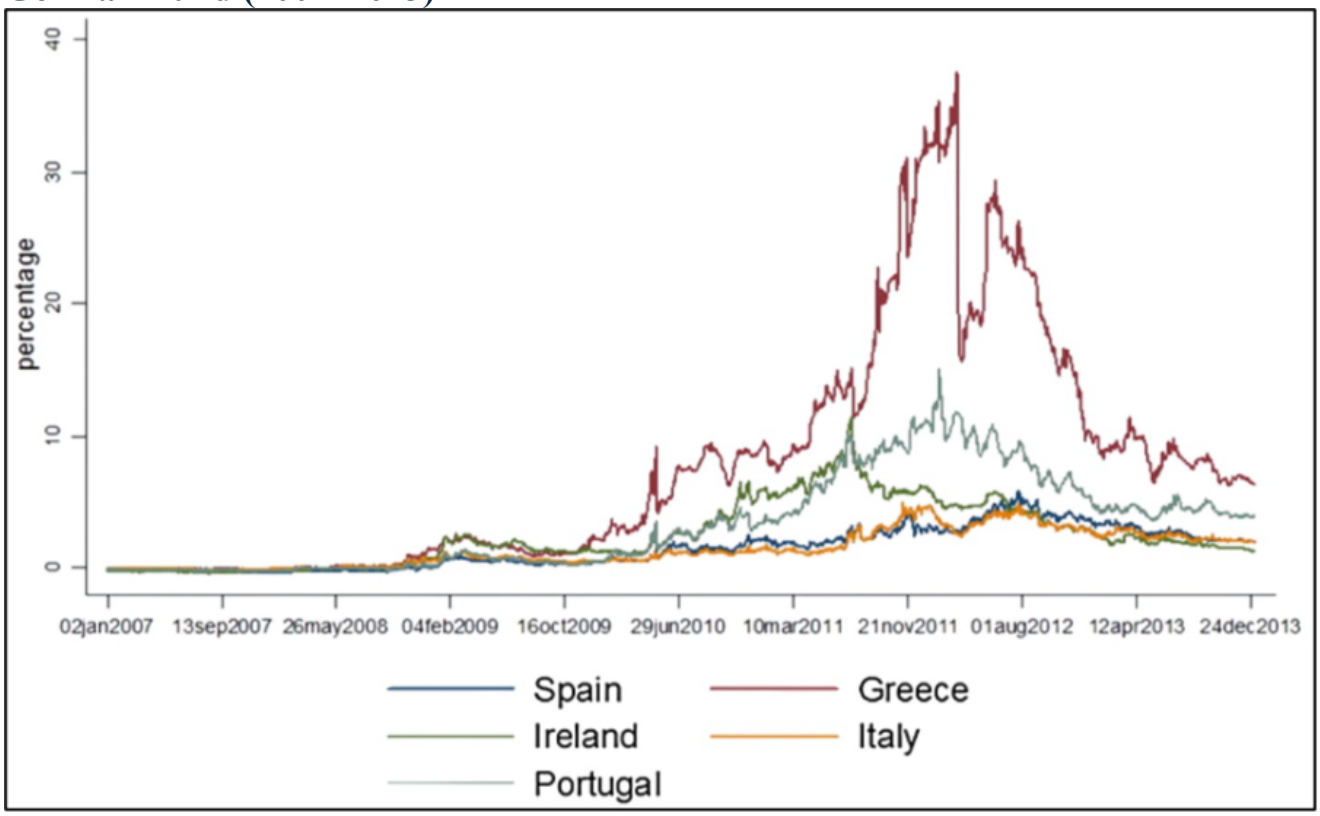
Hypothesis 2: Policy Learning and Shifts in Policymakers' Attitudes

This section examines the second hypothesis, according to which shifts in policymakers' attitudes and approaches after the Sovereign Debt Crisis shaped the way Europe responded to the Covid-19 shock. The analysis traces the casual mechanism from the hesitant and fragmented policymaking of the 2010s, to the swift and coordinated actions of 2020, and finally to the stabilisation of the markets that prevented a renewed sovereign debit panic.

The first step of this causal mechanism is the EU's hesitant and fragmented response to the Eurozone crisis. On 20th October 2009, Greece revealed the true size of its deficit, catching EU leaders

unprepared and uncertain about how to react. On 25th March 2010, the Heads of State of the Euro area issued a statement that acknowledged the severity of the situation but offered no concrete commitments (European Council, 2010a). A support package for Greece was announced on 7th May 2010, yet it fell short of a credible common intervention, even as the Council itself recognised the risk of contagion to other Member States (European Council, 2010b). In the meantime, observers highlighted then slow pace of European action and the destabilising absence of a lender of last resort, a guarantee that the euro would not collapse. The Guardian, the day before the rescue package for Greece was announced, reported that financial markets were driven by panic while the ECB resisted calls for stronger interventions, fuelling fears of broader banking crisis (Inman and Pratley, 2010). The Financial Times noted that "*the international rescue package had failed to quell investors fear about the future of the eurozone as concerns had risen about other member countries' stability"* (Oakley and Atkins, 2010). These perceptions were reflected in market data, with GIPS sovereign bond spreads rising sharply over the German Bund during spring 2010.

Figure 7: Sovereign Yield Spreads of Five Euro-Area Countries Relative to German Bund (2007–2013)



Source: Jager and Grigoriadis, 2017

Figure 7 shows this widening of sovereign spreads, reflecting both the sharp deterioration in market confidence following Greece's deficit revelation and the rapid contagion to the other euro area countries. Yield spread over German Bund surged as investors reassessed sovereign risk, reflecting

not only domestic vulnerabilities but also doubts about the euro area's institutional capacity to contain contagion.

This evidence functions as a straw-in-the-wind test, as it is consistent with the hypothesis that the hesitation in 2010 amplified market panic, but it cannot by itself confirm the hypothesis. By contrast, the evidence emerged during the Covid-19 pandemic provides stronger leverage.

A decade later, the institutional response to Covid-19 was completely different. On 11 March 2020, the WHO declared the virus a pandemic, just six days after the ECB had already launched a new asset purchase programme, the Pandemic Emergency Purchase Programme (PEPP) with an envelope of €750 billion, later further expanded (ECB, 2020). Within weeks, the European Commission complemented monetary action with fiscal measures. It proposed the Support to mitigate Unemployment Risks in Emergency (SURE) programme to help member states finance short-time work schemes. At the same time, the Eurogroup agreed on a €540 billion package combining European Investment Bank (EIB) guarantees, SURE, and a pandemic credit line from the ESM (European Commission, 2020a). By May, the Commission presented the NextGeneration EU (NGEU) recovery plan, a debt financed and grant-based solidarity instrument mobilising €750 billions, that would have been politically unthinkable in 2010. Placing the NGEU within the EU budget broke with the "last resort" logic of extra-institutional crisis management emerged during the European Sovereign Debt Crisis and signalled a new level of solidarity (Lagarde, 2020).

EU leaders themselves highlighted the contrast with 2010. Mario Centeno, then President of the Eurogroup, noted "*Europe took a long time to respond to the financial crisis. This time we only took a couple of weeks to start preparing and then another couple of weeks to deliver on the instruments for the emergency phase…procrastination in responding to economic and financial challenges is not a solution*" (Mario Centeno, 2020).

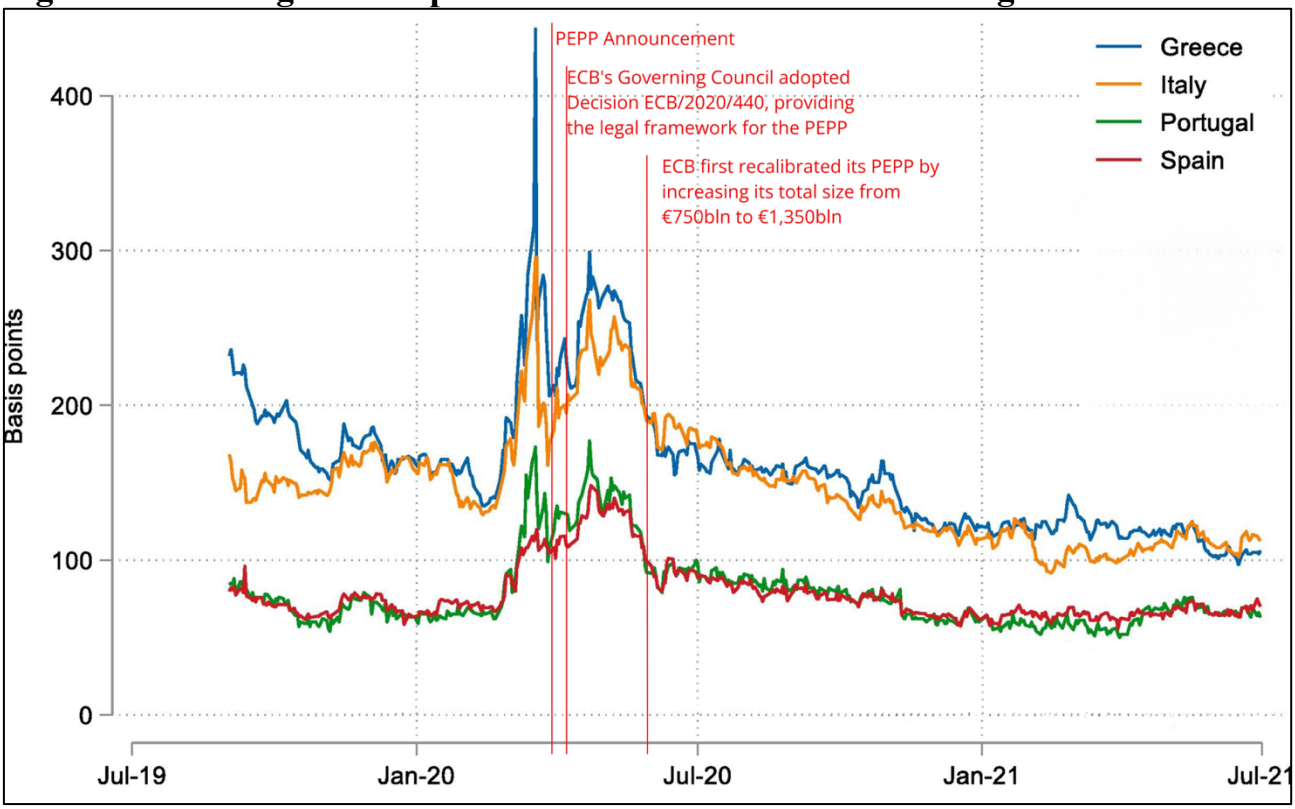
The coordinated measures implemented between March and May 2020 represent a hoop test for the second hypothesis suggested, as they are a necessary condition to infer that change in responsiveness of European institutions and behaviour in policymakers contributed to different outcomes than in 2010, but they are not sufficient to conclude that the absence of a crisis in 2020 was fully caused by this.

The decisive evidence lies in the reaction of financial markets to the support measures. Following the ECB's announcement of the PEPP on the 18th of March, euro area sovereign spreads, which had been widening rapidly, quickly stabilised. ECB analysis confirms that the programme "*successfully interrupted the rapid detachment of euro area sovereign bond yields from risk-free rates amid the market turmoil in early 2020*" (ECB, 2020).

Quantitative evidence shows that three events, the PEPP announcements (18 March 2020), its legal confirmation (24 March 2020) and its first recalibration (4 June 2020), accounted for up to 80% of the total impact on spreads. The cumulative announcement effect displayed large cross-country variation, with countries with lower sovereign credit rating witnessing the largest compression, for example Greece and Italy saw declines in the range of 180-280 basis points (Blotevogel et al., 2024). Focusing on sovereign bond spreads, meaning the difference between the 10-year benchmark bond of each country and Germany, Greece works as a perfect example for explaining the effects of the ECB's commitment to fiscally support Member States. Greek spread rose from 135bps in early 2020, to 443bps in March, before falling below 100bps by June 2021(Blotevogel et al., 2024).

Figure 8 illustrates this dynamic, showing how spreads in Greece, Italy, Portugal and Spain spiked sharply in March 2020, but quickly stabilised after the PEPP announcement and subsequent recalibrations. The immediate and pronounced compression of spreads, especially in Greece and Italy, visually underlines the decisive role of the ECB intervention in restoring market confidence during the early stages of the pandemic.

Figure 8: Sovereign bond spread of Euro Area countries during the Pandemic



Source: Blotevogel et al., 2024

The immediate compression of sovereign spreads following the PEPP and subsequent fiscal measures provides the decisive evidence that the policy shift influenced market dynamics. European

emergency measures successfully contributed to shielding euro sovereign markets against another downward spiral of rising spreads and market panic (Havlik et al., 2022). Moreover, market analysts explicitly connected this dynamic to the ECB's commitment to act as a lender of last resort and the EU's unprecedented fiscal solidarity (Bruegel, 2022; LSE Report, 2020).

By acting as a de facto lender of last resort and committing to joint fiscal capacity, European policymakers reversed the market expectations that had fuelled the sovereign-bank doom loop in the 2010s. The stabilisation of spreads, especially in vulnerable Member States like Greece and Italy, meant that banks' sovereign exposure did not deteriorate in value, insulating financial stability from the feedback loops that had amplified the earlier crisis.

This constitutes a smoking gun test for the hypothesis: policymakers' changed attitudes provided the critical causal link between past experiences and present stability. In other words, the policy learning of the 2010s translated directly into institutional practices that shielded the euro area from a second sovereign debt crisis during the pandemic.

Hypothesis 3: Market Perceptions and the Nature of the Shock

Unlike Hypothesis 2, which attributes market stability to shifts in EU policymaking attitudes, the third hypothesis examines the very nature and framing of the shock and how those factors shaped investor sentiment and contagion dynamics. In this context, the 2010 framing of the Eurozone crisis as the result of national policy failures serves as initial evidence that perceptions shaped financial contagion. By contrast, the 2020 Covid-19 crisis was framed as a symmetric and exogenous shock, highlighting common vulnerability rather than individual fault. This framing helps explain why markets did not panic over weaker member stated during the pandemic.

From the outset, the Eurozone crisis of the 2010s was framed as the result of national policy failures. In the Bundestag speech in May 2010, Chancellor Angela Merkel declared that the crisis had been "*triggered by Greece*", emphasising that the resolution of the crisis depended on domestic adjustment rather that European solidarity (Merkel, 2010). Similarly, at the Franco-German summit in Deauville in October 2010, Merkel and Sarkozy underlined that '*each Member State must assume full responsibility for its public finances*', while advocating for automatic sanctions for states breaching Maastricht fiscal rules (Franco-German Declaration, 2010). This framing reinforced investors' distrust toward fiscally weaker states. If Greece could not count on solidarity, markets assumed that no other Member State could either (Reuters, 2010). Consequently, the framing of the crisis as the fault of individual countries shaped investors' expectations and market sentiments, translating directly into higher sovereign spreads and amplified cross-border contagion.

This framing interacted directly with media coverage. Global news agencies, in the aftermath of the 2008 financial crisis, increasingly focused on the Eurozone. Semi-official statements about "disciplining", "punishing" or "expelling incorrigible borrowers" like Greece leaked into the media, while political and financial elites supplied content framing the crisis in a way that highlighted internal divisions (Kaitatzi-Whitlock, 2014). Economically "good" countries were set against "bad" members, and the label "PIGS" (in this dissertation referred as GIPS) emerged to categories weak peripheral economies, fuelling intra-Eurozone controversies (Kaitatzi-Whitlock, 2014).

Empirical studies confirm the market impact of this framing. The more frequently GIPS countries were mentioned in daily financial news, the higher their interest rate spreads rose. Negative coverage in one country also spilled over to others, with the magnitude of contagion strongly linked to the banking exposure of one country to the other sovereigns (Beetsma et al., 2013). In other words, the crisis was not only framed as a story of national fault, but this narrative was continually reinforced by the volume of pessimistic headlines, which market participants interpreted as pricing-relevant information about sovereign risk, resulting in substantial effects on market dynamics. Leading European media outlets, including the German *Bild Zeitung* and *Der Spiegel*, perpetuated negative stereotypes about southern European economies, emphasising descriptors such as "lazy", "corrupt", "profligate" and "untrustworthy". Research on media sentiment confirms this mechanism. During the European sovereign debt crisis, heightened media pessimism ad an increased number of news reports about GIPS countries can be associated with upward movements in sovereign spreads and declining bond prices, with particularly severe consequences for domestic and cross-border exposed banking institutions (Liu, 2014).

Together this framing and media amplification result into a wave of market panic, which triggered disproportionate sovereign spread increases, weakened sovereign creditworthiness, and reinforced the negative feedback loop between banks and sovereigns. While these findings demonstrate that the framing of the crisis and media amplification influenced market dynamics, they do not fully confirm the hypothesis that a different framing of the Covid-19 crisis avoided a second sovereign debt crisis. Instead, they function as a hoop test, providing necessary evidence that framing influenced investor behaviour and sovereign spreads during the European sovereign debt crisis of 2010s.

On a completely different note, the Covid-19 crisis was framed from the outset as an exogenous and symmetric shock. Policymakers and EU Heads of State consistently emphasised that the pandemic was outside anyone's power and that had to be faced as a common challenge requiring solidarity. On the 24 of March 2020, at the Eurogroup meeting, President Mário Centero explicitly defined the pandemic as a symmetric external shock and ruled out moral hazard, rejecting the framing

of national fault (European Council, 2020). On the same line, the European Commission announced the activation of the general escape clause of the Stability and Growth Pact, underlying that the pandemic was "an unusual event outside the control of governments" (European Commission, 2020). Unlike the morality tale of "southern sinners versus northern saints" that dominated discourse during the Eurozone crisis, the Covid-19 shock was narrated as a collective emergency that made mass audiences more open to arguments for solidarity. This narrative reassured both governments and markets that no Member State would be left to deal with the crisis alone because of alleged domestic irresponsibility.

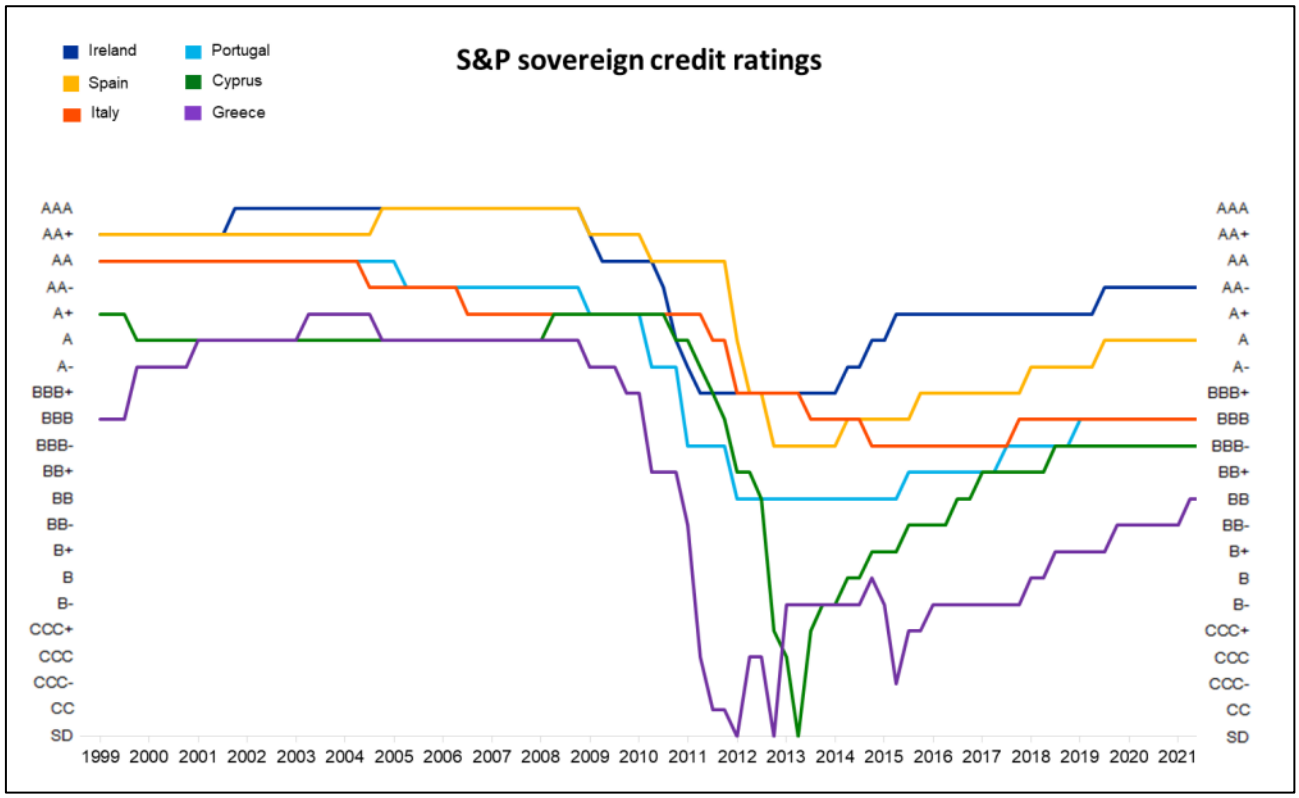
Media coverage strongly reinforced this framing. Global and European outlets portrayed Covid-19 primary as a shared health and economic emergency rather than a crisis caused by Member States' fiscal mismanagement. European news framing confirmed that early Covid-19 reporting echoed official discoursed of collective vulnerability and solidarity (Teschendorf V.S., 2023). In this sense, the media acted less as a transmitter of blame and more as an amplifier or policymakers' messages of unity, thereby reinforcing investors' expectations that the crisis would be addressed through common European instruments.

A key piece of evidence validating hypothesis 3 comes from financial markets' immediate reaction once such instruments were announced. regardless of their prior fiscal conditions. For instance, the Commission proposal to issue common European debt under the NGEU resulted in a very positive financial markets' response, with rallies in bank stocks and reduction of sovereign and bank CDS spreads, especially in more indebted countries (Pancotto et al., 2023). Moreover, an ECB's analysis found that the action of the EU institutions immediately lowered perceived sovereign risk, avoiding the negative feedback loop between sovereigns and banks to start working (ECB, 2022). It can be argued that since the Covid-19 pandemic had been framed in a different manner, markets did not look at national debt and deficit levels as key indicators of vulnerability, rather they looked at the whole European Union united in facing the shock.

This becomes especially clear when examining sovereign credit ratings. At the onset of the pandemic, sovereign bonds yields and CDS premia spiked across Europe, reflecting higher global risk and expectations of rising debt burdens. Yet, unlike in 2010s, this trend quickly reversed. A key difference lays in how markets interpreted the nature of the shock. During the Eurozone crisis the dominant narrative of national fault translated into waves of sovereign downgrades (Van Riet, 2021). Each downgrade not only increased borrowing costs but also weakened the balance sheets of banks holding EU governments bonds, intensifying the sovereign-bank nexus and fuelling a vicious loop of rising spreads, declining creditworthiness and financial instability (Acharya and Steffen, 2015). By contrast, during the Covid-19 pandemic sovereign ratings remains broadly stable, even in financially

weaker states, despite sharp increases in debt-to-GDP ratios. This stability spared banks from balance sheet losses and prevented the reactivation of the destructive sovereign-bank feedback loop (Corradin et al., 2021)

Figure 9: Sovereign Credit Ratings of Six Eurozone countries between 1999 and 2021



Source: Van Riet, 2021.

The graph illustrates this divergence. During the Eurozone crisis, fiscally weaker Member States such as Greece, Portugal, Spain, and Italy experienced steep and sustained rating downgrades as investors internalised the idea that national mismanagement was to blame. By contrast, during the Covid-19 crisis, ratings stability persisted even in the most indebted countries. This striking difference demonstrated that solidarity-based framing of the pandemic successfully reassured markets and helped prevent contagion.

Together, this evidence serves as a powerful smoking-gun test: EU solidarity measurably calmed markets, preventing panic and mitigating the sovereign-bank nexus that had defined the 2010 crisis.

Conclusion

The analysis just conducted shows that no single explanatory factor can fully explain the absence of a second sovereign debt crisis in 2020s. The testing process conducted on the first hypothesis demonstrated that the reforms implemented after the 2010s sovereign debt crisis resulted in increased harmonisation and stronger supervisory mechanisms, however, they did not eliminate the structural incentives linking banks and their domestic sovereigns. Persistent home bias and the preferential regulatory treatment of sovereign debt confirmed that the sovereign-bank nexus remains intact.

By contrast, the second hypothesis, focused on policy learning, highlighted a decisive shift in the attitudes and responsiveness of European policymakers. Unlike the hesitant and fragmented crisis management of the 2010s, the swift and coordinate action of the EU institutions and Heads of state effectively calmed markets, preventing panic among market participants. In other words, the policy learning of the 2010s translated directly into institutional practices that shielded the euro area from a second sovereign debt crisis during the pandemic.

Finally, the third hypothesis highlighted the importance of market perceptions and the framing of the crisis. While the 2010s Eurozone crisis was narrated as a story of national fault, the Covid-19 pandemic was framed as an exogenous and symmetric shock. This framing, reinforced by media coverage and EU communications, managed to reassure markets, stabilising sovereign spreads and protecting banks' balance sheets.

Conclusion

Thid dissertation originates from the empirical observation that, during the Covid-19 pandemic in 2020, government borrowings surged to levels comparable to those seen during the sovereign debt crisis of the 2010s, and banks, particularly in GIPS counties, once again increased their holdings of domestic sovereign bonds. This raised fears of a "sequel of the doom loop in Europe" (Kowsmann, 2020). Yet, despite these apparent parallels in sovereign exposure, fiscal vulnerabilities, and macroeconomic uncertainty, a full-scale sovereign debt crisis did not materialise.

It is from this paradox that the dissertation was motivated, with the central research question being: *why did Europe not experience a second sovereign debt crisis, despite conditions closely mirroring those of the 2010s?*

To address this question, the analysis combined quantitative data on banks' sovereign exposures with qualitative process-tracing of institutional, political and market dynamics. In the first chapter, I systematically collected and analysed data from the European Banking Authority and other institutional sources, mapping the evolution of banks' balance sheets and home bias before and during the Covid-19 pandemic. This empirical groundwork provided the foundation for subsequent examination of institutional reforms, policy responses, and market reactions.

The findings indicate that the institutional reforms implemented after the first crisis, most notably the Single Supervisory Mechanism, the Single Resolution Mechanism, and the broader Banking Union framework, enhanced supervisory harmonisation and crisis management capacity. However, these reforms did not eliminate the structural incentives underpinning the sovereign-bank nexus. Data obtained from EBA disclosures during the post-crisis and pandemic periods reveal persistent home bias and preferential regulatory treatment of sovereign debt, demonstrating that banks' balance sheets remained closely tied to their domestic governments. These findings suggest that the structural vulnerabilities of the Eurozone's financial system persisted, meaning that institutional reforms alone cannot explain the euro area's resilience in 2020.

By contrast, the evidence strongly supports the second hypothesis, according to which policy learning and attitudinal shift among European policymakers played a crucial role in preventing a second sovereign debt crisis in 2020s. While the 2010s crisis was characterised by hesitation, fragmentation, and an emphasis on national responsibility, the Covid-19 response was rapid, coordinated and based on solidarity. The immediate compression of sovereign spreads following the announcement of the first support package and subsequent fiscal measures demonstrated that this policy shift directly influenced market dynamics. European emergency interventions successfully shielded euro sovereign markets from the downward spiral of rising spreads and market panic

observed in the previous crisis. In this context, policymakers' changed attitude provided the critical causal link between past experiences and present stability. By acting as a *de facto* lender of last resort and committing to joint fiscal capacity, European authorities reversed market expectations that had fuelled the sovereign-bank doom loop in the 2010s. The stabilisation of spreads, particularly in vulnerable Member States such as Greece and Italy, prevented banks' sovereign exposures from deteriorating in value, insulating financial stability from the feedback loops that had amplified the earlier crisis.

The third hypothesis, arguing that crisis framing and market sentiment avoided a second European sovereign debt crisis, also proved decisive. Unlike the Eurozone debt crisis, which was narrated as a story of national fault, the Covid-19 pandemic was widely perceives as an exogenous, symmetric shock. This framing reassured investors, prevented panic-driven contagion, and helped stabilise sovereign spreads even in fiscally weaker Member States. During the Eurozone crisis, countries such as Greece, Portugal, Spain and Italy experienced steep and sustained rating downgrades as markets internalised the narrative of national mismanagement. By contrast, during the pandemic, rating stability persisted even in highly indebted countries, demonstrating that solidarity-based framing successfully reassured markets and mitigated contagion.

Taken together, these findings demonstrate that the absence of a sovereign debt crisis in 2020 cannot be attributed to structural reforms alone. Rather, it resulted from the interplay of institutional change, policy learning and market perceptions. This conclusion underscores the importance of both formal institutional capacity and informal political dynamics in shaping the resilience of the euro area highlighting that effective crisis prevention depends not only on regulatory frameworks but also on the strategic behaviour and collective learning of policymakers.

The relevance of these findings goes well beyond the Covid-19 episode. As new challenges emerge, from geopolitical instability and climate-related risks to the political dynamics of the European union, the sovereign-bank nexus continues to represent a latent source of vulnerability of the euro area. Today, all types of events have the potential to amplify sovereign-bank interlinkages, either by raising sovereign debt burdens or by reinforcing banks' reliance on government securities as a safe asset. With that in mind, understanding the conditions under which the nexus becomes destabilising is crucial for the existence of the EMU.

Future research could build on this study by adopting a more data-intensive, quantitative approach. In particular, access to granular bank-level balance sheets data and high-frequency market indicators, such as sovereign and bank daily CDS spreads would make it possible to test the hypotheses suggested in this dissertation in a more systematic and comparative manner.

In sum, this dissertation has demonstrated that Europe's resilience in 2020 was not the product of structural invulnerability, but of political learning, solidarity-based policymaking, and the framing of the pandemic as an exogenous and symmetric shock. Yet there is no certainty that future crises will allow for a similar or trigger the same degree of solidarity. The fact that euro area avoided a sovereign debt crisis in 2020 should not be read as evidence of a structurally robust EMU, but rather as the outcome of specific crisis characteristics. This fragility remains an open and urgent question for both scholars and policymakers.

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