# Unraveling the Pathways

## Exploring Extra-Institutional Financial Influence and Intra-Institutional Entrepreneurship as Drivers of the European Central Bank's Expanded Role in Financial Regulations Post-Euro Crisis

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# Abstract

The research goal is to clarify the scope of, and limitations to, contemporary financial political power and ECB entrepreneurship. The research question is: '*What explains the ECB's increased involvement in financial regulations since the Euro crisis*?' Bayesian process tracing is used as a method. The main hypothesis (H1) concerns extra-institutional financial influence, the rival hypothesis (H2) regards intra-institutional entrepreneurship, and the combined hypothesis (H3) considers both. Ten cases get assessed: ECB's increased oversight of eurozone banks and financial institutions, low interest rates, quantitative easing, bailouts, internal risk-modelling and banking supervision, high frequency trading and the financial transaction tax, the climate risk stress test, lobbying fora, advisory groups and financial associations. For each case, the strength and direction of the evidence is determined by applying four Bayesian process tracing tests to establish causal inference. The total sum of all cases determines whether H1, H2 or H3 gets confirmed. The conclusion is that: '*The ECB's increased involvement in financial regulatory matters since the Euro crisis is primarily caused by extra-institutional financial influence but sometimes by intra-institutional ECB entrepreneurship.'* The main academic contribution is the discovery of ECB entrepreneurship as another determinant of ECB's increased involvement in financial regulations since the Euro crisis and not solely financial influence. Second, this research showed that central banks are more susceptible to political and financial influences than their legal independent status reveals. Third, the expectation that independent central banks will be more inflation-averse than the government is in contestable since ECB's policies did contribute to inflation.

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*List of abbreviations and acronyms*

| Term | Abbreviation or acronym |
|---|---|
| Asset backed securities | ABS |
| Asset backed securities program | ABSPP |
| Asset Management Association | EFAMA |
| Asset purchase program | APP |
| Basel Committee on Banking Supervision | BCBS |
| Bond purchase program | CBPP3 |
| Capital markets union | CMU |
| Capital Requirements Directive IV | CRD IV |
| Committee on Economic and Monetary Affairs | ECON |
| Corporate sector purchases | CSPP |
| European Central Bank | ECB |
| European Commission | EC |
| European Financial Stability Facility | EFSF |
| European Internet Foundation | EIF |
| European Monetary Union | EMU |
| European Parliament | EP |
| European Parliamentary Financial Services Forum | EPFSF |
| European Systemic Risk Board (ESRB) | ESRB |
| Financial transaction tax | FFT |
| Forum for the Automobile and Society | FAS |
| High-frequency trading | HFT |
| Institutional Money Market Funds Association | IMMA |
| Internal ratings-based | IRB |
| International Monetary Fund | IMF |
| Market Abuse Regulation | MAR |
| Non-performing loan | NPL |
| Public sector purchasing program | PSPP |
| Risk-weighted asset | RWA |
| Supervisory Review and Evaluation Process | SREP |
| Target2-Securities | T2S |
| The Dutch Bank | DNB |

# 1. Introduction

This introduction discusses the context and problems during the sovereign debt crisis, the support of the ECB to the financial sector and the theoretical shortcomings of current theories on ECB-financial sector relationship. Then it continues to discuss the research question, the research goals, the main argument of this research and the contribution to the field of international relations.

## 1.1. The sovereign debt crisis

During the sovereign debt crisis, the ECB played an important role as a lender of last resort. The sovereign debt crisis was a period in which European countries had high government debts, bond yield spreads in government securities were rising and financial institutions collapsed (Lane, 2012). This was caused by a combination of factors including the financial crisis of 2007 and 2008 (Lane, 2012), the Great Recession of 2008 and 2012 (Martin & Philippon, 2017) and the real estate market crisis and property bubbles (Luque, 2020).

Another factor was the failing fiscal policies of peripheral Eurozone member states of Greece, Spain, Ireland, Portugal, and Cyprus. They were unable to refinance their government debt and thus needed assistance of financial institutions such as the ECB, the International Monetary Fund (IMF) and the European Financial Stability Facility (EFSF) (Lane, 2012). This is important because, in their conditionality for financial support, the ECB was much stricter to EU member states, compared to the financial industry (Fontan, 2018).

## 1.2. ECB's support to the financial sector

In the past decades central banks, among which the ECB, acquired considerable independence from democratic institutions (McNamara, 2002 & Singleton, 2010). High central bank independence and an explicit mandate to deliver low and stable inflation are seen as important institutional devices to assure price stability (Eijffinger & Hoeberichts, 2008). However, this technocratic form of governance can be seen as a form of power since monetary policy is taken away from political representation (Caramani (2017).

This became problematic during the financial crisis when the ECB broadened its capabilities, using unconventional monetary policy with higher redistributive effects (Haan &

Eiffinger, 2016; Reisenbichler, 2020). According to Fontan (2018), the ECB extended its influence on Eurozone governance by imposing its policy preferences. The relatively more stringent conditions that the ECB exerted in the financial rescue of Eurozone countries sharply contrasts with the almost unconditional help that the ECB has provided to the financial sector (Fontan, 2018). On one hand, the ECB used monetary measures to save large Eurozone banks while failing to control the use of these provided liquidities (Fontan, 2018). On the other hand, the ECB used strong coercive and cognitive pressure to reform Eurozone economic governance in a market-friendly way (Fontan, 2018).

## 1.3. Theoretical shortcomings of current theories on ECB-financial sector relationship

The legal independence of the ECB prohibits democratically elected political actors from influencing the monetary choices being made by the ECB. However, there is a growing network of advisory groups that have a direct line of contact with the ECB which are overwhelmingly occupied by private financial actors. Simultaneously, the ECB is reluctant to regulate financial markets, demonstrated in their positioning on high frequency trading, money market regulation, restrictions on internal risk modelling and their blocking of the taxation charge (Bowman, 2017; Canepa, 2016; ECB, 2014, Kalaitzake, 2019).

Current theories fail to explain what the biggest influence on the ECB's increased involvement in financial regulatory matters since the Euro crisis has been. Therefore, this research not only focusses on financial sector influence when assessing policy packages, it also considers the ECB as an entrepreneur in shaping financial markets. Examples are their drive for a new data infrastructure for non-performing loans, Target2-Securities, Capital Markets Union (CMU), and their engagement in securities lending (Mersch, 2017; Krarup, 2016; ECB, n.d.; Braun & Hübner, 2018).

## 1.4. Research question, scientific- and societal purpose

Existing literature revealed that the ECB has gotten increasingly involved in financial regulations after the Euro crisis. As a response, the financial sector got more active in defending their interests. The research question that is central to this research: '*What explains the ECB's increased involvement in financial regulations since the Euro crisis?'* The goal is

to clarify the precise scope of, and limitations to, contemporary financial political power and ECB-entrepreneurship. These two sub-questions will provide guidance: '*What is the role of entrepreneurs within ECB in the ECB's increased involvement in financial regulations since the Euro crisis?' and: 'What is the role of the financial sector in the ECB's increased involvement in financial regulations since the Euro crisis?'* The scientific purpose of this research is to find the main cause for the ECB's increased involvement in financial regulatory matters since the Euro crisis. The second scientific purpose is to question the notion of neutrality that is being used for the justification of the technocratic approach of central bank independence. The societal purpose of this research is to contribute to more democratic accountability for the ECB and transparency around its policymaking.

## 1.5. Main argument and empirical validity

*The main argument of this research is that the ECB's increased involvement in financial regulatory matters since the Euro crisis is primarily caused by a combination of extra-institutional financial influence but sometimes by intra-institutional ECB entrepreneurship.*

This argument is validated empirically through a Bayesian process tracing analysis. The investigation has been driven by empirical facts by carefully examining ECB working papers, EU regulation, NGO research papers and analyzing the data regarding this reasoning. Other information that was easily accessible consisted of policy papers, documents and data generated by the ECB on subjects including markets, monetary policy, statistics, and banking supervision. Additional qualitative information was gathered from the policy position papers of think tanks and additional economic and political science research papers.

As per process-tracing language, ten policy packages (or pieces of evidence) are assessed regarding ECB's increased oversight of eurozone banks and financial institutions, money market regulation (e.g., low interest rates, quantitative easing and bailouts), internal risk-modelling and banking supervision, high frequency trading and the financial transaction tax, the climate risk stress test, lobbying fora, advisory groups and financial associations.

Each piece of evidence passes or fails one of the four causal process-tracing tests, in relation to the main hypothesis (H1) '*The increased involvement of the ECB in financial regulations is due to extra-institutional financial influence of the financial sector'* and the rival hypothesis (H2) '*The increased involvement of the ECB in financial regulations is due to intra-institutional entrepreneurship.'* The total outcome for each hypothesis is based on the

inferential weight of the evidence. This resulted in a confirmation of the combined hypothesis (H3) *'The increased involvement of the ECB in financial regulations is due to a combination of extra-institutional financial influence and intra-institutional entrepreneurship.'*

## 1.6. Overall contributions to the field of international relations

This research brings three academic contributions to the field of international relations. First, the literature should include ECB entrepreneurship as another determinant of ECB's increased involvement in financial regulations since the Euro crisis and not solely financial influence. That is because while financial sector influence explains more policy areas (or pieces of evidence), it is theoretically interesting and important that intra-institutional entrepreneurship also plays an important role sometimes. Future research could explore why this happens. Second, the notion of central bank independence is a legal status whereas in practice central banks might be more susceptible to political and financial influences than their legal independent status might reveal. Specifically, the ECB was susceptible for financial political influence regarding low interest rates, bailouts, internal risk-modelling and banking supervision and high frequency trading and the financial transaction tax. Third, the notion that an explicit mandate for highly independent central banks will be more inflation-averse than the government is in practice contestable since ECB's policies did contribute to inflation. Both the ECB's expansionary fiscal policy, money creation and zero percent interest rate strategy contributed to inflation in and outside the euro area.

## 1.7. Structure

This research continues with the second chapter, entailing a literature review on the ECB and the financial private sector. The third chapter, research design and case selection, discusses the research questions, the research goals, the hypotheses, case selection, methods and operationalization. The fourth chapter contains the presentation of results including a description of policy cases (or pieces of evidence) that strengthen or weaken the main or rival hypothesis. Chapter four is divided in the ECB side, the financial sector side and an overview of results. Chapter five presents the conclusion and a discussion on theoretical implications, limitations, suggestions for future research and societal implications.

# 2. Literature review

The first part of this literature is about the ECB, specifically about central bank independence, technocratic governance, expanding mandates and financial interests. Then it discusses the redistributive effects of unconventional monetary policies, intra-institutional entrepreneurship in financial markets and the concept of politicization. The second part is about the financial sector, discussing the concept of financialization and extra-institutional actors. It also presents five routes of financial political power: infrastructural, instrumental, structural, discursive and performative. The third part entails an overview of preliminary causes of the ECB's increased involvement in financial regulations since the Euro crisis.

## 2.1. The ECB

In the past decades central banks, among which the ECB, acquired considerable independence from democratic institutions (McNamara, 2002 & Singleton, 2010). High central bank independence and an explicit mandate to deliver low and stable inflation are seen as important institutional devices to assure price stability (Eijffinger & Hoeberichts, 2008). A prime example has been the German central bank: The Deutsche Bundesbank. The German central bank was relatively autonomous at the same time in which Germany had one of the best post World War II inflation records among the OECD countries (Eijffinger & Schaling, 1993). With the Maastricht Treaty the ECB has also been made very independent, with its statutes modelled after the law governing the German central bank (Eijffinger & Hoeberichts, 2008).

### 2.1.1. Central bank independence

Central bank independence refers to the legal and operational independence granted to modern central banks aiming to mark them off as a unique institutional organ within the apparatus of the state and seemingly more resistant to conventional routes of political influence (Kalaitzake, 2019). Goodhart and Meade (2003) compare its status to the judiciary by saying that both are purposefully walled off from pressures of partisan scrutiny, political bargaining, compromise, and the inherent vagaries of political events. Rather, independent central banks should make policy decisions that are not influenced by vested public or private interests (Kalaitzake, 2019). In practice however, central banks might be more susceptible to

political and financial influences than their legal independent status might reveal. The theoretic reasoning for central bank independence can be explained through the time-inconsistency problem, rational expectations, and the conservative banker (Eijffinger & Hoeberichts, 2008).

First, the time inconsistency problem, which refers to a policy maker announcing an optimal inflation rate (Eijffinger & Hoeberichts, 2008). Private actors take this inflation rate into account whereafter it becomes attractive for the policy maker to create extra unexpected inflation (Eijffinger & Hoeberichts, 2008). That is because unexpected inflation has benefits for a government since it reduces real wages, thereby increasing employment (Eijffinger & Hoeberichts, 2008).

The second factor, rational expectations, refers to private actors taking this extra unexpected inflation into their calculation beforehand. In both the first and the second case, inflation is higher than its optimal rate (Eijffinger & Hoeberichts, 2008). To tackle this so-called inflationary bias, Rogoff (1985) proposed to delegate monetary policy to an independent and conservative banker.

The third factor, the conservative banker, means that central bankers should be more inflation-averse than the government. The reason that an independent central banker is more inflation-averse than the government is that the central bank has a longer view of the policy process than politicians do (Cukierman, 1992). That is because central bankers only have to be concerned with stable inflation, instead of other policy goals such as high employment levels and adequate government revenues (Cukierman, 1992).

### 2.1.2. Technocratic governance

According to Caramani (2017), technocratic governance can be seen as a form of power, as an alternative to political representation. It is based on a unitary, non-pluralistic, unmediated, and unaccountable vision of society's general interest (Caramani, 2017). Technocracy stresses responsibility and requires voters to entrust authority to experts who identify the general interest from rational speculation (Caramani, 2017). The problem with technocratic governance is that it has the potential to pit experts, that are meant to be independent and apolitical (e.g., the ECB) against political actors who feel that issues are removed from their grasp which should be resolved politically (Högenauer, 2019).

The democratic justification of central bank independence is the idea that monetary policy is technical and apolitical, also referred to as technocratic governance (Marcussen,

2009). Where policymaking does not have significant redistributive implications, it can benefit from depoliticization (Högenauer & Howarth, 2019). A very narrow mandate should justify and protect the democratic legitimacy of technocratic governance (Högenauer & Howarth, 2019).

This however is a theoretical and far too idealistic view on central bank independence. On the contrary, theories in both political economy and political science suggest that governments may strategically choose to delegate monetary policy to detach it from political debates over power struggles (Haan & Eiffinger, 2016). This argument is especially valid in countries with federal structures, coalition governments and strongly polarized political systems (Haan & Eiffinger, 2016).

### 2.1.3. Expanding mandates and financial interests

The financial crisis and the European debt crisis have put a lot of pressure on the ECB. From 2010, during the outbreak of the sovereign debt crisis, the ECB adopted a range of policies which pushed its role well beyond the narrow mandate of price stability (Micossi, 2015). According to Reisenbichler (2020), unconventional central bank policies, such as quantitative easing, led to a form of redistribution that directly undermined treaty provisions. According to Heldt and Mueller (2021), the ECB used the sovereign debt crisis to stretch its mandate by expanding its material capabilities and by playing a substantial influential role in the institutional design of new institutions such as the banking supervisions.

As a result, theorists in both political science and political economy, start to challenge the strict boundary between legal independence versus day-to-day practice. A striking example is the ECB's double standards during the Euro crisis regarding their conditionality for financial support to states and financial markets, with a bias in favour of the latter (Fontan, 2018). This amplifies a power discrepancy between private financial interests and the preference of citizens. On one hand, the ECB used monetary measures to save large Eurozone banks while failing to control the use of these provided liquidities (Fontan, 2018). On the other hand, the ECB used strong coercive and cognitive pressure to reform Eurozone economic governance in a market-friendly way (Fontan, 2018).

This example raises the question whether ECB-policies favour private financial goals under the veil of formal neutrality. The phenomenon of unconventional monetary policy and financial sector bias emerged in times of economic and institutional crisis. However, up until

today, the ECB did not return to its narrow technical task with a clear objective of price stability by using a well-defined set of tools (Van ‘t Klooster & Fontan, 2020).

### 2.1.4. Redistributive effects of unconventional monetary policies

There is a lot of debate on the exact scope and impact of the redistributive effects of unconventional monetary policies. The Dutch Bank (DNB) is an independent central bank and the supervisor of the financial system in the Netherlands. In their working paper on the politics of central bank independence they explain that all decisions of central banks have some redistributive effects since banks affect relative prices (Haan & Eiffinger, 2016). However, financial stability and unconventional monetary policies have much stronger redistributive effects than conventional monetary policies (Haan & Eiffinger, 2016).

This finding is being supported by Reisenbichler (2020) in his research to the politics of quantitative easing and housing stimulus by the ECB between 2008 and 2018. Jacobs and King (2018) and Jones and Matthijs (2019) also explain that quantitative easing programmes have significant distributive implications because they support certain assets and markets while excluding others. Jones and Matthijs (2019) claim that quantitative easing produces financial instability which leads to greater mistrust and a critical stance towards central bank independence among the European public.

Since mortgages is one of the largest asset classes in capital markets, housing is an important target for central banks quantitative easing programmes (Johnston & Kurzer, 2019). This leads to lowered mortgage debt and increasing house prices which results in winners benefiting from inflated housing prices, while losers that can no longer afford to buy a house (Binder & Spindel, 2016).

At last, Jacobs and King (2016) explain how quantitative increases wealth inequality by driving up asset prices to unusually high levels. All in all, it can be concluded that after the Sovereign debt crisis, the EBC got an altered role with expanded capabilities that indirectly has fiscal consequences.

### 2.1.5. Intra-institutional entrepreneurship in financial markets

The term intra-institutional refers to internal activities, processes, collaborations, or interactions that occur within or among different parts or units of the same institution

(Christiansen, 2011). The ECB is an entrepreneur when it comes to central banking and the integration of financial markets. It provides and publishes opinions on proposed financial legislation, and they can also adopt legal acts (ECB, n.d.). For the ECB, intra-institutional entrepreneurship in financial markets might involve different ECB officials working together on new financial legislation, or different departments coordinating chances to financial legislation, rather than having external interactions with the financial industry (ECB, n.d.). The new ideas for financial regulation and the development of existing financial regulation comes from intra-institutional (meaning internal of the ECB) policy entrepreneurs looking for an ideal moment to introduce their ideas (Christiansen, 2011).

Increasingly, ECB officials receive training from US-based academic institutions where they learn about the reproduction and completion of the Anglo-American financial system, based on a monetarist vision of economics (Lebaron, 2013). These teachings are highly alike with the preferences and interests of the financial private sector (Lebaron, 2013: 93-101). This knowledge is likely to have an impact when they take an advisory role in shaping the EU financial markets.

An example of the ECB as entrepreneur is their drive for, and favourable positioning of a new data infrastructure for non-performing loans (NPLs) (Mersch, 2017). This platform provides information on the individual underlying loans or based on a summary which helps financial actors and policymakers to thoroughly assess risks in securitised portfolios (Mersch, 2017).

Another case in which the ECB is powerful in integrating financial markets is Target2-Securities (T2S). T2S is a pan-European settlement platform that should overcome existing fragmentation between the systems that performs the practical delivery of money and securities (i.e., stocks and bonds) from financial transactions (Krarup, 2016). It is remarkable that T2S is under complete control of the ECB since the European Commission (EC) insisted on an industry-led solution while current securities arrangements are managed by private parties (Krarup, 2016).

In the EU, market-based economic governance was at the heart of the ECB's decision to engage in securities lending since 2015 (ECB, n.d.). The general aim of securities lending is to enlarge bond and repo market liquidity. (ECB, n.d.). This engagement of the ECB in securities lending is part of a bigger trend in fiscal policy in which treasuries are embracing market-based sovereign debt management practices (Lagna, 2016; Livne and Yonay, 2016; Fastenrath et al, 2017).

The ECB also played an important role in the agenda-setting process of the CMU. The ECB's push for CMU, and thus for a more market-based financial system, is a perfect example of the ECB shaping the future of European integration which could be labeled as a process where political choices are made (Braun & Hübner, 2018). CMU should fix the structural capacity gap that exists because fiscal austerity is institutionalized on a national level while other macroeconomic levers take place at the European level (Braun & Hübner, 2018).

Cases of financial regulatory matters in which the ECB has spoken out about in a conservative way are high frequency trading, money market regulations, and restrictions on internal risk-modelling (Bowman, 2017; Canepa, 2016; ECB, 2014). Conservative refers to the ECB calling for a gradual or reluctant approach to regulate these financial matters. At last, the ECB was a major veto player in blocking the taxation charge, deploying arguments that were highly congruent with those made by financial associations (Kalaitzake, 2019).

### 2.1.6. Politicization

Politicization is a three-dimensional process involving increased salience, polarisation of opinion, and the expansion of actors involved in EU issues (De Wilde et al., 2016; De Wilde, 2011; Hutter & Grande, 2014). It is an increase in polarization of opinions, interests of values and the extent to which they are publicly advanced towards policy formulation within the EU (De Wilde, 2011).

There is a complex dynamic between politicization, central bank independence and technocratic governance. The unconventional monetary policies of the ECB were an attempt to depoliticise political challenges through a technocratic approach (Högenauer, 2019). However, it ended up with the exact opposite resulting in greater politicization The ECB managed to stabilize the Eurozone, no member state had to leave the Euro and no member state defaulted. But this approach reduced the opportunities for democratic contestation which breads frustration and leads to more politicization (Högenauer, 2019). As a result, ECB policies have become more politicized and subject of scrutiny and dissatisfaction in national parliaments (De Wilde, 2011).

The legitimacy of the ECB was based on its role as an apolitical expert, secured mainly by EU law (Amtenbrink, 2019). Now, the ECB is increasingly entering the arena of political decision making because of its broad interpretation of monetary policy mandate, its role in drafting and monitoring of macroeconomic adjustment programmes and the

redistributive consequence of its policies (Amtenbrink, 2019). Above all, the ECB is an incredible institutional power in the integration of European financial markets. There is a need for a clearer picture as to who the main actors are in the various ECB and decision-making processes which allows for clearer lines of accountability.

## 2.2. The financial sector

After the global financial crisis, the role of the financial sector got stronger while the positioning of the EU and the ECB towards reforming global finance was very modest (Bieling, 2014). According to Bieling (2014), due to a competition of deregulation and the importance of global financial centres, there has been a structural bias towards a liberal global financial order. Today, a new type of economy is emerging, based on the integration of financial markets and an ongoing process of financialization (Bieling, 2014).

### 2.2.1. Financialization

Financialization refers to an era of liberalized currency regimes, market-based financial systems, increased speculation and financial engineering, and the rise of shareholder value logics (Crotty, 2009; Davis & Kim, 2015; Krippner, 2012). The history of financialization is a result of a pro-finance policy consensus across multiple political fora which structurally entangled economic growth and competitiveness with the profitability of oversized financial institutions (Block, 2017, p. 519). With a great focus on shareholder value, it had led to corporate disaggregation, outsourcing, increasing compensation at the top while at the same time increasing societal inequality (Davis & Kim, 2015).

According to Braun, ECB's governance and policy preferences are substantially shaped by its growing dependence on the technical architecture of a market-based financial system (2018). A fundamental feature of the market-based financial system is the growing significance of finance, financial markets, and financial institutions (Davis & Kim, 2015). With central banks rising in institutional prominence, they have a fundamental impact on governing these financial markets. Thus, it becomes even more important to have central banks that act in the public interest, independently from financial markets.

### 2.2.2. Infrastructural power

Infrastructural entanglement refers to different infrastructure systems or components being highly interconnected, interdependent, or complexly linked together (Braun, 2018). In the context of the ECB and the financial sector, changes, or disruptions in one component (e.g., public banking) can have cascading effects on other related components of the system (e.g., private banking) (Braun, 2018).

In a capitalist financial system, some infrastructural entanglement of private banking and public central banking is unavoidable but in the 1980s, central banks moved to a more market-based system (Braun, 2018). This resulted in the ECB taking over financial practices, such as margin calls, haircuts, and mark-to-market techniques (Gabor & Ban, 2016). In 2005, the ECB outsourced the decision over collateral eligibility of euro-area sovereign bonds to private credit rating agencies (Orphanides, 2017). Also, the ECB shifted from direct to indirect monetary policy instruments such as open market operations, standing facilities and the triad of reserve requirements (Baliño & Zamalloa, 1997). With these developments in mind, the concept of infrastructural power enables to see the ECB as a de factor financial policymaker.

As an example, the ECB played a huge role in establishing and expanding repo and securitisation markets which are used to roll out monetary policy. In line with private sector interests, the ECB pleaded for regulatory easing while other policy makers still saw the securitisation market as potentially dangerous (Braun, 2018). Also, the ECB was against the financial transaction tax (FFT), meaning the Commission's proposal for tax on repo (Braun, 2018). Braun (2018) examines this development with the infrastructural power approach predicting that "under conditions of infrastructural entanglement, the interests of state actors in search of market-based economic steering capacity will tend to align with the interests of financial-sector counterparties, thus boosting the latter's political power" (p. 15-16).

### 2.2.3. Instrumental power

Instrumental power refers to microlevel interactions between the ECB and the private financial sector, consisting of strategy, resources, and direct influence (Kalaitzake, 2019). Two mechanisms that are forms of instrumental power are the phenomena of closed policy circles and revolving doors.

Closed policy circles refer to forums that include the ECB and policy advisors of civil society, interest groups and state bureaucracy (Kalaitzake, 2019). The ECB has a total of 22 advisory groups with 517 available seats from which 508 have been assigned to members of private financial institutions (Hair, 2017). The commonly heard argument for this set-up is the need for technical advice on complex markets, products, and financial procedures (Kalaitzake, 2019). Also, financial actors have data on the current market situation and can help policy makers to gain acceptance among the finance community (Kalaitzake, 2019).

Revolving doors refers to actors leaving the financial private sector to take up positions within the ECB afterwards, and the other way around (Chalmers et al., 2022). The main finding of Chalmer et al. (2022) is that most people moving in and out are those with lots of knowledge about financial policy and regulation. That contradicts the assumption that it is mostly traders and investment managers who bring highly technical knowledge about the operational side of the industry (Chalmers et al., 2022). It also nuances headline grabbing stories such as that of Manuel Barroso. This former EU top legislator took a position at Goldman Sachs, a bank that was viewed as little principled in triggering the 2008 financial crisis, causing great public dissatisfaction (MacDonald, 2016).

There are great risks of a big overrepresentation of the financial lobbying. Clear examples are the LIBOR scandal and the Forex scandal. The LIBOR scandal was a systematic operational manipulation of borrowing rates by traders and managers in some of the largest banks around the world (McConnell, 2013). It damaged the public's trust in financial markets and financial contracts were mispriced in transactions of corporate fundraising, mortgages, and derivative trades (McConnell, 2013). Soon after, the revelation of the Forex scandal revealed that several big banks were colluding in exchange rate manipulation for their own financial gain (Stenfors & Muchimba, 2022). Such examples show how non-transparent the foreign exchange market is, even though it is great in size and importance.

### 2.2.4. Structural power

Structural power refers to the characteristics of the political-economic system and the structural dependence between state and finance (Culpepper, 2015). The structure of capitalism makes large businesses political players while the system creates opportunities for some but not others (Culpepper, 2015). States can benefit from letting companies compete for their own economic and political power struggles (Culpepper, 2015). Capital flight and Too Big to Fail are two mechanisms that can be seen as a form of structural power.

Capital flight is the mechanism of private investors having enough investment opportunities, but public officials being bound to nations which makes them compete for scarce capital (Cerny, 1997). Cerny (1997) calls this the paradox of globalization, where the so-called competition state is increasingly involved in liberalization and competitive deregulation.

A first example of capital flight was the severe drop in demand of periphery bonds and a capital flight to quality, mostly German bonds, during the Euro zone crisis (IMF, 2012). A second example was the movement of deposits from periphery banks to those in the core and the banking runs that followed (Kalaitzake, 2019). A third example was the restriction of interbank loans offered to periphery banks (Kalaitzake, 2019). Empirical studies show that countries with economic or political instability and policy uncertainty are most at risk of capital flight (Vue Le & Zak, 2006). Disinvestment of a nation's assets (e.g., government bonds, corporate stocks) and downward pressure on foreign currencies makes it even harder for such countries to repay external debt and forces policymakers to introduce harsh austerity programmes to regain investor trust (Kalaitzake, 2019). During the Eurozone crisis, as a lender of last resort, the ECB was the only authority that could stop the downward spiral and stabilize the financial system through unlimited purchases of government bonds (De Grauwe, 2013). However, this is a risky practice which can lead to a never-ending cycle of debt creation if there is no strengthened control on national budgetary processes and on national macroeconomic policies (De Grauwe, 2013).

Too Big to Fail is the mechanism of financial institutions being thoroughly interconnected with markets, firms, and countries, causing systemic importance for good economic functioning (Kalaitzake, 2019). This gives them leverage over policymakers and political actors since few of them would want to take the risk of letting these financial institutions go bankrupt. This is especially the case in the EU where banking markets are highly concentrated among just a few firms and where banks are the ones responsible for most of the credit to the economy (Distinguin et al., 2013). On top of that, Goldstein and Véron (2011) show that national banks are closely connected to domestic firms and bureaucratic actors who do not want to see national banks fall.

According to Kalaitzake (2019), what distinguishes structural- from instrumental power is that with the latter there is more of a conscious political intent from the financial actors. On the contrary, structural power is a mode of causal influence happening through the collective, aggregate decision-making of investors within a highly uncertain market environment (Kalaitzake, 2019).

### 2.2.5. Discursive power

The discursive power approach builds on ideational approaches to financial power by unpacking the interactive processes through which financial actors employ ideas and discourse to gain influence (James et al., 2022). It differs from both instrumental and structural forms of financial power by highlighting the importance of ideas, identification of shared preferences and building powerful coalition around a unified discursive strategy (James et al., 2022).

Fuchs and Lederer (2008) suggest that forms of ideational influence, being a part of discursive power, should be investigated further. Such investigation could reveal the effectiveness of the financial private sector in influencing ECB agenda-setting. This would take a similar approach to the explanation of discursive institutionalists on why liberal governance is so success: through marginalizing alternative policies (Mügge, 2013; Schmidt, 2016).

The first condition for discursive power to work is ideational constraints, such as deep philosophies or unconscious frames, which are shaped by the public philosophy of a polity, bound to the institutional context within actors operate (Schmidt, 2008; Schmidt, 2010). The second condition is discursive co-production, which is the interactive processes through which strategic discourse is communicated, internalised, and supported by policymakers (James et al., 2022).

An example of financial discursive power is the City of London's influence during Brexit negotiations. The UK financial sector used institutionalised interaction with the Treasury and Bank of England to co-produce discursive power to achieve pro-finance cross-party consensus (James et al., 2022). This resulted in internalised pervasive normative arguments about the importance of finance to the UK economy (James et al., 2022). This resulted in government sponsorship of new collective bodies to represent the City's shared interests and political support to defend the sector's competitive advantage against EU regulation (James et al., 2022).

### 2.2.6. Performative power

Performativity theory suggests that financial practices and models do not merely represent or reflect economic activities but actively shape and construct them (Callon, 1998; MacKenzie et al., 2007). According to this perspective, financial theories, techniques, and instruments have

the power to influence economic behaviour, create new market conditions, and even reshape the structure of the economy itself (Callon, 1998; MacKenzie et al., 2007).

Due to the ever-expanding techniques of the financial sector, it is increasingly complex for policymakers to stabilize financial markets (Fastenrath et al., 2017). Simultaneously, central banks themselves increasingly use novel pro-market and financialized solutions to reach monetary and regulatory objectives (Fastenrath et al., 2017). It reveals that the relationship between central banks and the financial industry is two-sided.

Financial performativity can manifest in several ways. For example, the widespread adoption of certain financial models or metrics can influence corporate behaviour and decision-making (Didier, 2007). The use of derivative instruments can create new financial risks and affect market dynamics (MacKenzie, 2009). Financial innovations can change the way companies raise capital or investors allocate their funds (Tufano, 2003).

A specific example of financial performativity is the management of sovereign debt in which financial markets are used as a government mechanism (Fastenrath et al., 2017). Central bankers cooperated with investment banks to learn about portfolio theory and how to apply it (Fastenrath et al., 2017). The state became a shareholder and institutional investor in the economy while the financial industry entered the domain of modern democracies: public finance and debt (Fastenrath et al., 2017; Wang, 2015).

### 2.2.7. Extra-institutional actors

The phenomenon of extra-institutional actors in a democratic society refers to the involvement of lobbying actors in a political process. Resolution 1744 of the Parliamentary Assembly of the Council of Europe confirms the potentially beneficial role of extra-institutional actors as an expression of pluralism but also expresses its concerns about the risks involved for democracy (Parliamentary Assembly, 2010).

One great benefit of extra-institutional actors is the provision of expert information in their field which is necessary for informed political decision making (Parliamentary Assembly, 2010). They contribute to a better representation of specific interests or needs, and they provide additional channels of public oversight over policy making.

A risk, however, is a lack of transparency which causes suspicions of corruption and lowers the public confidence in public institutions (Parliamentary Assembly, 2010). Also, these extra-institutional actors have no mandate from the broader public nor any democratic accountability (Parliamentary Assembly, 2010). Thus, there is a lack of legitimacy with these

extra-institutional actors having real influence and authority with little to no assessment of their representativity (Parliamentary Assembly, 2010).

In this study, extra-institutional refers to secondary stakeholders outside the ECB, such as the private financial sector, that could influence policy-positioning and organizational processes, even if they are excluded from participating in legitimate channels of policy making.

## 2.3. Overview of preliminary causes

The literature review has revealed that the ECB is granted high independence with a narrow mandate to deliver price stability (McNamara, 2002 & Singleton, 2010; Eijffinger & Hoeberichts, 2008). The logic behind central bank independence is to tackle so-called inflationary bias, meaning that central bankers should be more inflation averse than governments, purposely walled off from political bargaining (Cukierman, 1992; Goodhart & Meade, 2003).

However, this technocratic form of governance can be seen as a form of power since monetary policy is taken away from political representation (Caramani (2017). This became problematic during the financial crisis when the ECB broadened its capabilities, using unconventional monetary policy with higher redistributive effects (Haan & Eiffinger, 2016; Reisenbichler, 2020). In their conditionality for financial support, the ECB was much more lenient to the financial industry compared to EU member states (Fontan, 2018). The literature review gives some preliminary answers as to why the ECB has increasingly gotten involved in financial regulations since the Euro crisis.

First, the role of the financial sector got stronger during the financial crisis due to an ongoing process of financialization. Financialization entails liberalized currency regimes, competitive deregulation, speculation, financial engineering, and the rise of shareholder value logics (Crotty, 2009; Davis & Kim, 2015; Krippner, 2012). Thus, there is a growing dependence of the ECB on the technical architecture of a market-based financial system which this is crucial to understand why the financial industry has good bargaining power (Braun, 2018). The financial sector tries to influence financial regulations, using routes of infrastructural-, instrumental-, structural-, discursive-, and performative power (Braun, 2018; Kalaitzake, 2019; Culpepper, 2015; James et al., 2022; Callon, 1998; MacKenzie et al., 2007).

The financial sector can be referred to as extra-institutional actors, which means that lobbying actors are involved in a political or technocratic process (Parliamentary Assembly, 2010).

Second, the ECB is an entrepreneur when it comes to the design and integration of financial markets (ECB, n.d.). The new ideas for financial regulation and the development of existing financial regulation comes from intra-institutional (meaning internal of the ECB) policy entrepreneurs looking for an ideal moment to introduce their ideas (Christiansen, 2011). The expanding mandate of the ECB has led to increasing politicization and scrutiny of its policies (De Wilde et al., 2016; De Wilde, 2011; Hutter & Grande, 2014). Simultaneously the ECB is reluctant to regulate the financial industry (Bowman, 2017; Canepa, 2016; ECB, 2014; Kalaitzake, 2019).

Concluding, the literature review has suggested that there could be both internal and external explanations for the ECB's increased involvement in financial regulations since the Euro crisis. Thus, there are two main types of explanations: extra-institutional and intra-institutional. One possible causal mechanism is that it is extra-institutional financial influence that causes the ECB's increased involvement in financial regulation since the Euro crisis. An alternative possible causal mechanism is that it is intra-institutional entrepreneurship within the ECB that causes its increased involvement in financial regulations since the Euro crisis. These preliminary explanations from the literature review will be the foundation for the hypotheses in the next chapter.

# 3. Research design and case selection

The purpose of a research design is to create a plan of study that permits accurate assessment of cause-and-effect relationships between independent variables. Good research should first answer the research questions central to the investigation. Secondly, alternative explanations should be eliminated and lastly, the degree of generalization that is made should be valid (Jang, 1980). Thus, this chapter discusses the research question and research goals, the definition and operationalization of the key concepts, the hypotheses, the case selection, Bayesian process tracing as a method and the operationalization.

## 3.1. Research question and research goals

Existing literature revealed that the ECB has gotten increasingly involved in financial regulatory matters after the Euro crisis. As a response, the financial sector got more active in defending their interests. The financial sector uses different routes of influence such as infrastructural, instrumental, structural, discursive and performative. The research question central to this study is:

> *'What explains the ECB's increased involvement in financial regulations since the Euro crisis?'*

In surveying a variety of financial policy packages, the following sub-questions provide guidance:

1. *'What is the role of entrepreneurs within ECB in the ECB's increased involvement in financial regulations since the Euro crisis?'*
2. *'What is the role of the financial sector in the ECB's increased involvement in financial regulations since the Euro crisis?'*

These sub-questions contribute to answering the main research question because they should be asked when analysing a specific ECB policy. By asking these questions, the analysis has a strong focus in finding out who the ECB favours or prioritizes by positioning themselves in a certain way on a financial regulation.

### 3.1.1. Scientific relevance

The main scientific purpose of this research is to find a cause for the ECB's increased involvement in financial regulations since the Euro crisis. This is relevant as it investigates the extent to which financial political power can influence ECB policy-output. It is possible that structures of financial political power, such as financial advisory groups, shape the direction, ideational basis, and preferences of ECB policies. Therefore, this research investigates whether the notion of central bank independence means anything useful in the real world, not just in legal terms. Thus, the second scientific purpose is to question the notion of neutrality that is being used for the justification of the technocratic approach.

### 3.1.2. Societal relevance

Furthermore, this research aims to add societal relevance by contributing to more democratic accountability for the ECB and transparency around its policymaking. Citizens have no influence on ECB policy output, which in theory should be beneficial for price stability but in practice leaves little room for adjusting the ECB's course when it stretches the boundaries of its mandate. This is problematic for the level of public trust in such a powerful public institution. First, we need to improve transparency around the impact of financial political power on the legislative process within the ECB. Second, through clarifying the exact scope of, and limitations to, contemporary financial political power, it is possible to create measures of democratic accountability that are both proportionate to the EBC's capabilities and functional to exercise for democratically elected officials such as Members of the European Parliament (EP).

## 3.2. Definition and operationalization of key concept

Based on the literature review and the research questions, the dependent variable is the ECB's increased involvement in financial regulations since the Euro crisis.

The first independent variable is extra-institutional influence. Extra-institutional influence refers to secondary stakeholders outside the ECB that could influence policy-positioning and organizational processes, even if they are excluded from participating in

legitimate channels of policy making. This happens because the private financial industry wants to lobby for its preferences and interests.

The second independent variable is intra-institutional entrepreneurship. The literature review has revealed that increased involvement in financial regulations is due to the influence or ideas from policy entrepreneurs within the ECB looking for an ideal moment. The reason for internal entrepreneurship would be that an increasing number of ECB officials receive training from US-based academic institutions. Here they learn about the reproduction and completion of the Anglo-American financial system, based on a monetarist vision of economics. These teachings are highly alike the preferences and interests of the financial private sector (Lebaron, 2013: 93-101).

A third option is the combination of the first and second independent variable. This would mean that the ECB's increased involvement in financial regulatory matters is caused by a combination of intra-institutional entrepreneurship and extra-institutional influence.

### 3.2.1. Operationalization of the dependent Y variable: ECB's increased involvement in financial regulations

For the operationalization of the dependent variable: ECB's increased involvement in financial regulations, examples are drawn from the literature review. Figure 2 illustrates the policy areas in which there was an increased involvement of the ECB or where arguments were made that are highly congruent with those made by financial associations. The financial regulatory matters that have been detected from the literature are high frequency trading, money market regulations, restrictions on internal risk-modelling, ECB's push for CMU and the ECB blocking the taxation charge.

**Figure 2**

*The dependent variable (X)*

| **ECB's increased involvement in financial regulations** |
|---|
| High frequency trading |
| Money market regulations |
| Restrictions on internal risk-modelling |
| Capital Markets Union (CMU) |
| Financial Transaction Tax (FFT) |
| New data structure for non-performing loans (NPLs) |
| Securities lending |
| Target2-Securities (T2S) |

Figure 2 also shows the ECB as entrepreneur in the policy areas of a new data infrastructure for NPLs, their decision to engage in securities lending and integrating financial markets through T2S. These policy packages are a starting point of analysis but if other policy packages provide useful information on the hypotheses, process-tracing will also be applied.

### 3.2.2. Operationalization of the independent X variable: extra-institutional financial influence

The operationalization of the independent variable: extra-institutional financial influence, consist of the multiple forms of political power used by the financial private sector through which they potentially influence the policy choices of the ECB. Figure 3 shows the multiple forms of financial political power, whether it be infrastructural-, instrumental-, structural-, discursive- and performative influence. The phenomena of revolving doors and closed policy circles are categorized as instrumental power while capital flight and the Too Big to Fail phenomenon are classified as structural power.

**Figure 3**

*The independent variable (Y)*

| **Extra-institutional financial influence** |
|---|
| Infrastructural (IF) |
| Instrumental (I)<br>• Revolving doors (RD)<br>• Closed policy circles (CPC) |
| Structural (S)<br>• Capital flight (CF)<br>• Too Big to Fail (TBTF) |
| Discursive (D) |
| Performative (P) |

### 3.2.3. Operationalization of the covariable: intra-institutional entrepreneurship

Even if the ECB would be influenced by the financial private sector, which has been suggested by existing literature, there is also another explanation for its policies. This explanation can be labelled as intra-institutional entrepreneurship. Figure 4 illustrates the concept of the ECB as an entrepreneur, inspired by market-based economic governance, a

monetarist vision of economics, the integration of financial markets and a reluctance to regulate financial market regulations. Furthermore, Figure 4 shows that the ECB is bound by the growing dependence on the architecture of a market-based financial system, which includes increased speculation, financial engineering, the rise of shareholder value logic, liberalized currency regimes and the structural entanglement of economic growth with the profitability of financial institutions. That is why intra-institutional entrepreneurship will serve as a covariable in explaining the ECB's increased involvement in financial regulatory matters.

**Figure 4**

*The independent covariable (Y)*

| **Intra-institutional ECB entrepreneurship** |
|---|
| The ECB's entrepreneurial character. |
| A reluctance to regulate financial markets. |
| Monetarist vision of economics. |
| The desire to integrate financial markets. |
| Increased speculation. |
| Financial engineering. |
| The rise of shareholder value logic. |
| Structural entanglement of economic growth with the profitability of financial institutions. |
| Growing dependence on the architecture of a market-based financial system. |
| Liberalized currency regimes. |

## 3.3. Hypotheses

A good hypothesis should be grounded in theory (Ricks & Liu, 2018). In 1993, Popper suggested scientists should make bold hypotheses that can then be falsified by evidence. Rather than looking for supporting evidence, scientists should do everything they can to refute their own hypotheses. Thus, criterion of the scientific status of a theory are testability, falsibility and refutability (Popper, 1976). In the sub-section 'definition and operationalization of key concept' two independent variables and one dependent variable are discussed which be the basis for the hypotheses.

Building a research design for process-tracing is the same as in other types of causal inference. However, in process-tracing, it is not only about the theory of interest that but also about rival explanations. That is why the primary hypothesis should be evaluated against alternative hypotheses (Hall, 2013; Rohlfing, 2014; Zaks, 2017).

Thus, this research builds on the main hypothesis (H1), the rival hypothesis (H2) and the combined hypothesis (H3):

*H1* *The increased involvement of the ECB in financial regulations is due to extra-institutional financial influence of the financial sector.*

*H2* *The increased involvement of the ECB in financial regulations is due to intra-institutional entrepreneurship.*

*H3* *The increased involvement of the ECB in financial regulations is due to a combination of extra-institutional financial influence and intra-institutional entrepreneurship*

## 3.4. Case selection

In research there is the variance-based approach and the case-based approach. The variance-based approach builds on counterfactual causal claims, providing evidence of mean causal effects of variables across many cases (i.e., within a population or a sample thereof) (Beach & Pedersen, 2016). In contrast, case-based approach takes the individual case or a few cases as the analytical point of departure and focusses on mechanistic causal claims (Beach & Pedersen, 2016). This research is case based, focusing on a variety of policy cases. By performing an analysis of specific influencing processes within these individual cases, this research will be a within-case analysis (Mahoney & Goertz, 2012).

Cases on the ECB side include the ECB's increased involvement ECB's increased oversight of eurozone banks and financial institutions, money market regulation (e.g., low interest rates, quantitative easing and bailouts), Internal risk-modelling and banking supervision, high frequency trading and the financial transaction tax and the climate risk stress test. Other cases on the financial sector side are lobbying fora, advisory groups and financial associations.

In international relations, the unit of analysis is often a country. One or a few foreign policies get studied, tracing the decision-making process at the macro-level. However, the country as unit of analysis is not appropriate for all questions. In this research, economic actors (such as the ECB and the financial sector) might be more suitable as a unit of analysis, tracing the influencing process at the micro-level.

With this backward-looking design, this research aims to explain causes of effects (Mahoney & Goertz, 2006. That means that the focus is the outcome – in this case the increased involvement of the ECB in financial regulatory matters – and consequently distinguish possible causes – in this case extra institutional influence and intra-institutional entrepreneurship

## 3.5. Methods

Broadly, there are three types of case-based research, being qualitative comparative analysis, process tracing and interpretative methods (Aamodt & Plaza, 1994). Process tracing methods (small N) and qualitative comparative analysis (medium N) both have a positivist foundation whereas interpretative methods (small or medium N) have a constructivist foundation (Aamodt & Plaza, 1994).

The positivist and the constructivist rely on a different ontology. The positivist assumes that an independent reality exists whereas the constructivist assumes that reality is socially constructed (Hardy et al., 2004). Regarding epistemology, the positivist assumes that meaning is fixed and reflects reality in ways that can be ascertained using scientific methods (Hardy et al., 2004). For example, a positivist question would ask: 'Has there been financial political influence on the ECB's increased involvement in financial regulations?' The question central to this research is a positivist question: 'What explains the ECB's increased involvement in financial regulations since the Euro crisis?'

The constructivist assumes that meaning is fluid and constructs reality in ways that can be posited using interpretative methods (Hardy et al., 2004). Thus, a constructivist question would ask: 'Why do people believe there to be financial political influence?'

This research focusses on cases that are very different, consisting of financial regulations, ECB policies and lobbying venues. That is why it is doubtful whether it is worth implementing a qualitative comparative analysis which is better fit for an intermediate number of comparable cases, ranging between 10 and 50 (Legewie, 2013). Also, qualitative comparative analysis is more of a rigorous comparison that divides the population into relatively homogeneous sets whereas process tracing is better suited for typical in-depth analysis of a typical case or a few cases (Legewie, 2013). Interpretative methods are also not chosen because it assumes that findings cannot be generalized (Hardy et al., 2004).

Not being able to generalize does not align with the research aim of this paper that wants to trace explanations for the ECB's increased involvement in financial regulations. That is why process tracing is chosen as a method since it can identify causal mechanisms and it assumes to be indicative of similar processes elsewhere (Collier, 2011).

### 3.5.1. Bayesian process tracing

What does Bayesian process tracing exactly do as a method? According to Fairfield and Charman (2017) "process tracing builds upon Bayesian probability as extended logic from the physical sciences, where probabilities represent rational degrees of belief in propositions given the inevitably limited information we possess" (p. 363). With Bayesianism as a methodological foundation, process tracing makes causal inferences within a single case by exploring alternative explanations and testing those against the evidence that is found (Fairfield & Charman, 2017). It requires an iterative dialogue with the data, and it can be applied to unique events without reference to a population (Siva, 2006, p. 108–118).

### 3.5.2. Advantages and limitations of Bayesian process tracing

The first opportunity that Bayesian analysis offers is that it makes sure to examine alternative explanations (Fairfield & Charman, 2017). Secondly, it promotes to clearly describe the degrees of belief (Fairfield & Charman, 2017). Thirdly, it seeks to find and thoroughly assess important evidence and essential elements of background information (Fairfield & Charman, 2017). At last, it helps inferences to approximate Bayesian logic more so than untrained intuition (Fairfield & Charman, 2017).

However, there are some limitations to the method that should also be kept into account. The method requires substantial training, and it may be too demanding beyond simple causal models and probabilities cannot be specified without any doubt (Fairfield & Charman, 2017). Also, Bayesian analysis does not necessarily lead to greater analytical transparency, especially if evidence gets divided into too many steps which confuses rather than clarifies inference (Fairfield & Charman, 2017).

### 3.5.3. Guidelines of Bayesian process tracing

Fairfield and Charman (2017) formulated very specific guidelines for Bayesian process tracing to ensure analytical transparency, judgement of evidence and clarity about inferential logic. These guidelines refer to hypotheses, evidence, likelihoods, and logarithmic scales and will be used in the rest of this research to ensure that the Bayesian process tracing method is properly employed.

First, mutually exclusive hypotheses should be clearly formulated that does not directly compare H vs. ~H. Next, priors are formulated that reflect background information which are equally assigned according to the principle of indifference. Then, the analysis is executed using multiple different prior distributions (Fairfield & Charman, 2017).

Second, evidence from different types of sources should be treated as distinct pieces of evidence. To clarify reasoning, evidence should not be divided into extremely fine-grained pieces, but it should also not be combined into very large clusters (Fairfield & Charman, 2017).

Third, "assess the likelihood that source S stated X, considering that biases and instrumental incentives may change under rival hypotheses" (Fairfield & Charman, 2017, p. 379). It is critical to think about logical dependence which can be done by conditioning likelihoods based on evidence that was found earlier. Then, order all pieces of evidence in such an order that it is easy for the reader to understand the reasoning about logical dependence (Fairfield & Charman, 2017). At last, explain how exactly background information leads to likelihoods and clarify the analysis by assessing likelihood ratios or weight of evidence (Fairfield & Charman, 2017).

### 3.5.4. Process tracing tests for causal inference

There are four basic tests that are applied in process-tracing to determine whether there is causal inference: straw-in-the-wind, hoop, smoking-gun and doubly decisive. The straw-in-the wind test is neither sufficient nor necessary for affirming causal inference while the doubly decisive test is both sufficient and necessary. The hoop test is not sufficient but necessary for affirming causal inference while the smoking-gun test is sufficient but not necessary (Collier, 2011; Bennett, 2010; Van Evera, 1997).

If a hypothesis passes the straw-in-the-wind test it affirms the relevance of the hypothesis, but it does not confirm it, while slightly weakening alternative implications.

Failing this test does not eliminate the hypothesis, it simply weakens this specific hypothesis, and it slightly strengthens rival hypotheses (Collier, 2011; Bennett, 2010; Van Evera, 1997).

Passing the hoop test affirms the relevance of this hypothesis but it does not confirm it, while somewhat weakening alternative explanations. Failing the hoop test eliminates this hypothesis while somewhat strengthening alternative explanations (Collier, 2011; Bennett, 2010).

Passing the smoking-gun test confirms this hypothesis while substantially weakening alternative explanations. Failing the smoking-gun test does not eliminate this hypothesis but it somewhat weakens it while somewhat strengthening alternative explanations (Collier, 2011; Bennett, 2010; Van Evera, 1997).

The strongest test is the doubly decisive test which means that if a hypothesis passes the test, it confirms causal inference and it eliminates alternative explanations. Failing the doubly decisive test eliminates the hypothesis and substantially strengthens rival hypotheses (Collier, 2011; Bennett, 2010; Van Evera, 1997).

## 3.6. Operationalization

The operationalization explains in four steps how the process-tracing analysis will be conducted. This entails formulating sub-hypotheses, defining empirical proof, collecting evidence, and determining the weight of the evidence. At last, ethical considerations are discussed regarding the ethical standards of science.

### 3.6.1. Formulating sub-hypotheses

The first phase entails developing working sub-hypotheses that can be empirically verified using process tracing in its theory-testing form. These sub-hypotheses have been developed by combining observations from the literature on how the European Central Bank and the financial sector operate. In an iterative process, the sub-hypotheses are evaluated and debated. Each subsection with evidence gets assessed, comparing it to the main hypothesis (H1) and to the rival hypothesis (H2). It is possible that a piece of evidence strengthens both the main hypothesis (H1) and the rival hypothesis (H2) which means it also strengthens the combined hypothesis (H3). Each subsection with evidence will be its own sub-hypothesis. That way, it

is possible to have a piece of evidence confirm a sub-hypothesis, without necessarily confirming the main or rival hypothesis.

*H1 The increased involvement of the ECB in financial regulations is due to extra-institutional financial influence of the financial sector.*

*H1.1* *ECB's increased oversight of eurozone banks and financial institutions was caused by extra-institutional financial influence of the financial sector.*

*H1.2* *ECB policy on low interest rates was caused by extra-institutional financial influence of the financial sector.*

*H1.3* *ECB policy on quantitative easing was caused by extra-institutional financial influence of the financial sector.*

*H1.4* *ECB policy on bailouts was caused by extra-institutional financial influence of the private financial sector.*

*H1.5* *ECB policy on internal risk-modelling and banking supervision was caused by extra-institutional financial influence of the financial sector.*

*H1.6* *ECB policy on high frequency trading and the financial transaction tax was caused by extra-institutional financial influence of the financial sector.*

*H1.7* *ECB policy on the climate risk stress test was caused by extra-institutional financial influence of the financial sector.*

*H1.8* *Lobbying fora are a demonstration of extra-institutional financial influence of the financial sector.*

*H1.9* *Advisory groups are a demonstration of extra-institutional financial influence of the financial sector.*

*H1.10* *Financial associations are a demonstration of extra-institutional financial influence of the financial sector.*

*H2 The increased involvement of the ECB in financial regulations is due to intra-institutional entrepreneurship.*

*H2.1* *ECB's increased oversight of eurozone banks and financial institutions was caused by intra-institutional entrepreneurship.*

*H2.2* *ECB policy on low interest rates was caused by intra-institutional entrepreneurship.*

*H2.3* *ECB policy on quantitative easing was caused by intra-institutional entrepreneurship.*

*H2.4* *ECB policy on bailouts was caused by intra-institutional entrepreneurship.*

*H2.5* *ECB policy on internal risk-modelling and banking supervision was caused by intra-institutional entrepreneurship.*

*H2.6* *ECB policy on high frequency trading and the financial transaction tax was caused by intra-institutional entrepreneurship.*

*H2.7* *ECB policy on the climate risk stress test was caused by intra-institutional entrepreneurship.*

*H2.8* *Lobbying fora are a demonstration of intra-institutional entrepreneurship.*

*H2.9* *Advisory groups are a demonstration of intra-institutional entrepreneurship.*

*H2.10* *Financial associations are a demonstration of intra-institutional entrepreneurship.*

*H3 The increased involvement of the ECB in financial regulations is due to a combination of extra-institutional financial influence and intra-institutional entrepreneurship.*

### 3.6.2. Defining empirical proof

The second step is about defining tangible signs or empirical proof of whether each sub-hypothesis happened as expected or not. This was accomplished by thinking about what would constitute high-certainty evidence to support or disprove each sub-hypothesis, based on a personal in-depth grasp of the situation. The investigation has been driven by empirical facts by carefully examining ECB working papers, EU regulation, NGO research papers and analyzing the data regarding this reasoning. Other information that was easily accessible consisted of policy papers, documents and data generated by the ECB on subjects including markets, monetary policy, statistics, and banking supervision. The economic research that informs the ECB's policies is covered in its research and publications department. This provides insight into their way of thinking, what motivated them to adopt certain policy positions, and how they now contribute to the financial structure of our economy.

### 3.6.3. Collecting evidence

For the third step, ideas underlying the possible causal mechanisms of the sub-hypotheses were carefully compared to the collected evidence. When highly definite evidence was not accessible, less certain evidence was sought after. Additional qualitative information was gathered from the policy position papers of think tanks and additional economic and political science research papers to fill in any remaining gaps. The collection of evidence was executed while keeping in mind that the ECB's greater involvement in financial regulation is attributable to a variety of factors.

To make sure that no crucial piece of information was missed, it has been decided to assess a variety of financial policy areas, together with information on lobbying fora, advisory groups and financial associations. As an extra safeguard, a university professor, researcher, and expert familiar with the background and research on economic governance and international organizations validated the collection of mapping evidence was missed.

### 3.6.4. Determining the inferential weight of evidence

In the fourth step, Bayesian probability reasoning is used to examine the strength of numerous pieces of evidence. The extent to which the data supports or disproves the assumptions included in sub-hypotheses is assessed using the four tests proposed by Beach and Pedersen (2019), who expanded on Van Evera's (1997) methodology. Each piece of evidence is assessed in accordance with the four tests. Decisions are taken based on what is known from the literature review about the reality of policymaking in a worldwide, financialized economic system.

If a sub-hypothesis passes a test, it gets the color green whereas if the sub-hypothesis fails a certain test, it gets the color red, which represents the direction of evidence. However, it is not only about adding up green sub-hypotheses versus red sub-hypotheses, but also about considering the weight of each piece of evidence. Therefore, all four causal tests are attributed a number, which represents the strength of evidence. The straw-in-the-wind test weighs 1 point, the hoop test weighs 2 points, the smoking gun test weighs 3 points and the doubly decisive test weights 4 points. When a sub-hypothesis passes a test, the points are added up, when a sub-hypothesis fails a test, the points are subtracted from the total outcome. At the end of the results chapter, the total outcome of the direction and the strength of evidence of all

pieces of evidence is calculated to determine whether it supports the main hypothesis (H1), the rival hypothesis (H2) or the combined hypothesis (H3). The main hypothesis (H1) can only be confirmed when there has been no strong or decisive evidence found that confirms the rival hypothesis (H2). Likewise, the rival hypothesis (H2) can only be confirmed when there has been no strong or decisive evidence found that confirms the main hypothesis (H1).

If both the main hypothesis (H1) and the rival hypothesis (H2) receive a positive total outcome of individual evidence ratings, this means that the combined hypothesis (H3) gets confirmed. More specifically, this should include either passing one smoking gun, and/or one doubly decisive test, and/or more than two hoop tests. That is because both the smoking gun test and the doubly decisive test are sufficient for establishing causal inference. The hoop test is necessary but not sufficient, meaning there needs to be more than one piece of evidence that passes the hoop test for establishing causal inference. Passing straw-in-the-wind tests alone is not sufficient because it is neither sufficient nor necessary for establishing causal inference.

### 3.6.5. Ethical considerations

The main and secondary data used in this study were obtained from several data sources, including published documents. There are no ethical gray areas because only fully anonymized data is used in public material and secondary data. All the study was conducted in conformity with the ethical standards of science, including benefiting society, impartiality and honesty, responsibility, and openness (Fujii, 2012). It was made sure that past knowledge of the context could be utilized to inform, but not prejudice, the work provided in this research by questioning diverse opinions on interpretations and seeking to triangulate findings across data sources and analysts. However, it is not impossible that different researchers with different backgrounds and degrees of experience may have come to a different conclusion.

# 4. Research results

This chapter contains the research results and is divided in the ECB side and the financial sector side. Within these division, the pieces of evidence are discussed to then determine the direction and strength of this evidence, in relation to the sub-hypotheses. This chapter ends with an overview of the research results.

## 4.1. ECB side

For the ECB side, evidence is discussed on topics such as the ECB's increased oversight of eurozone banks and financial institutions, money market regulation (e.g., low interest rates, quantitative easing, and bailouts), internal risk-modelling and banking supervision, high frequency trading and the financial transaction tax, and the climate risk stress test. Each sub-section ends with discussing the strength of the evidence and whether it confirms or refutes one of the two or both sub-hypotheses.

To construct a complex and fine-grained picture of financial political power, the evidence on the ECB side is evaluated by analyzing the reasoning of the ECB for macroeconomic policies that came up in the literature review. This is done while considering the probably competing interests of financial institutions and the desired market circumstances in which financial institutions would thrive.

### 4.1.1. ECB's increased oversight of eurozone banks and financial institutions

This piece of evidence, regarding ECB's increased oversight of eurozone banks and financial institutions, is discussed to assess the relevance of H1.1 '*ECB's increased oversight of eurozone banks and financial institutions was caused by extra-institutional financial influence of the financial sector'*, and H2.1 '*ECB's increased oversight of eurozone banks and financial institutions was caused by intra-institutional entrepreneurship*.'

The global financial crisis that started in 2008 was a significant moment in time that has affected the ECB's greater participation in financial regulatory issues (Moshirian, 2011). This is not a unique phenomenon, throughout history economic or financial failures have led to the introduction of new regulations (Gordon, 2000). With the aim of avoiding new disasters, the ECB increased its oversight of eurozone banks and financial institutions. This

resulted in more regulations for the financial industry in which the ECB was involved (Moshirian, 2011).

The ECB's growing engagement in financial regulations is also influenced by the Single Supervisory Mechanism and the Capital Requirements Directive: two recent EU rules that have given the ECB more authority to regulate banks and other financial organizations (Ferran & Babis, 2013; Christopoulos & Quaglia, 2009). The ECB has also been given additional responsibilities in the field of macroprudential policy, which entails keeping an eye on and acting to reduce systemic risks to the financial system (Cassola et al., 2019).

Figure 5 illustrates that this piece of evidence weakens H1.1 that the increased oversight of the ECB of eurozone banks and financial institutions is due to extra-institutional financial influence of the financial sector. That is not to dismiss the fact that the financial sector will use its influence to shape financial regulations according to its interests, but this piece of evidence is pointing out that the start of the ECB's increased oversight of eurozone banks and financial institutions was initiated by a desire in society to avoid new financial disasters. The EU then gave the ECB the capacity and authority to regulate banks and be responsible for more macroprudential policy. Therefore, the strength of evidence in relation to H1.1 has been evaluated as having failed the straw-in-the-wind test (neither sufficient nor necessary) which weakens the hypothesis, and it slightly strengthens other hypotheses. Rather, the ECB's increased control over eurozone banks and financial institutions was a crucial part of its larger mission to uphold price stability and guarantee the efficient operation of the financial system in the euro area. Thus, the strength of evidence in relation to H2.1 has been evaluated as having passed the hoop test (necessary but not sufficient) which strengthens this hypothesis, while somewhat weakening alternative explanations.

**Figure 5**

*H1.1 and H2.1*

| | | | |
|---|---|---|---|
| H1.1 ECB's increased oversight of eurozone banks and financial institutions was caused by extra-institutional financial influence of the financial sector. |  | H2.1 ECB's increased oversight of eurozone banks and financial institutions was caused by intra-institutional entrepreneurship. |  |

### 4.1.2. Money market regulation

The money market is a place where short-term financial products like commercial paper, certificates of deposit, and Treasury bills are exchanged (Bordo et al., 2016). For financial institutions, this market is essential since it gives them the money they require for daily operations (Bordo et al., 2016).

To control the money market, the ECB employs a variety of strategies, including interest rate setting, open market operations, and lending liquidity to banks (Ross et al., 2016). The cost of borrowing and lending on this market is directly impacted by the ECB's interest rate choices, which have a bearing on the money market (Ross et al., 2016). Considering high inflation pressures, in May 2023 ECB decided to raise its three key interest rates by 25 basis points (ECB, 2023). The Governing Council is trimming the asset purchase program (APP) portfolio of the Euro system, aiming to end reinvestments as of July 2023 (ECB, 2023). To affect the level of liquidity in the banking system, the ECB also engages in open market operations, which entail purchasing or selling government assets (Ross et al., 2016). Open market operations can be main refinancing operations, longer-term refinancing operations, fine-tuning operations, and structural operations (ECB, n.d.). The ECB aids in ensuring that the money market runs smoothly and effectively by giving banks liquidity (Ross et al., 2016). The ECB has also put in place several rules and policies designed to guarantee the security and stability of the money market. For instance, to guarantee that short-term debt instruments, such commercial paper, and certificates of deposit, fulfill specific quality and security requirements, the ECB has developed eligibility criteria for their issuance and trading (ECB, 2023).

Low interest rates, quantitative easing and bailouts are all ECB policy choices that affect the functioning of the money market, the functioning of the financial sector and the levels of inflation. These policies will be discussed separately to assess the related sub-hypotheses.

#### *4.1.2.1. Low interest rates*

This piece of evidence, regarding low interest rates, will be discussed to assess the relevance of H1.2 '*ECB policy on low interest rates was caused by extra-institutional financial*

*influence of the financial sector'*, and H2.2 '*ECB policy on low interest rates was caused by intra-institutional entrepreneurship*.'

Das and Das (2014) argue that the single currency in the European Monetary Union (EMU) has amplified inflation divergence. This is supported by Karanasos et al. (2016) who argue that inflation divergence among euro countries has strengthened since the start of EMU in 1999, which is due to the removal of national price stability measures. The most important price stability measure of a central bank is raising interest rates (ECB, n.d.). Raising interest rates makes borrowing money more expensive, discourages consumption and can cool an overheated economy (ECB, n.d.). In times of deflation, lowering interest rates can actually create additional investment in the economy (ECB, n.d.). With countries no longer in control of interest rate policy, they are more vulnerable to economic shocks which is a consequence of the structure of the euro zone and the policies of the European Central Bank (Honohan & Lane, 2003). The ECB does only have a direct impact on inflation in euro countries. However, once (unconventional) policies are launched, this influence indirectly extends to the entire EU. One explanation for this is the trade treaties between the countries of the EU which can lead to imported inflation (Plümper & Troeger, 2006). Another explanation is that national banks of non-euro countries closely align their policies with those of the ECB which makes inflation in non-euro countries sensitive to ECB policy (Plümper & Troeger, 2006).

For many years, the ECB has maintained interest rates at historically low levels, making it less expensive for banks to borrow money (Riet, 2017). However, this unconventional monetary policy is accompanied by unintended side-effects on the distribution of income and wealth, the pace of economic restructuring, the soundness of fiscal policies, financial intermediation, and the stability of the financial sector (Riet, 2017). The financial sector is expected to gain from this approach at the expense of savers who see their returns on deposits decline (Riet, 2017).

Cecchetti (2016, p. 160) calls the low interest rates the dark side of monetary policy accommodation. This entails financial intermediaries starting to look for yield in riskier markets which may encourage excessive spending and risky investments (Cecchetti, 2016). Misallocated credit for productivity growth and overextended private sector leverage has negative effects on financial stability (Borio, 2014; White, 2016). Fortunately, the ECB showed entrepreneurship by being directly involved in tightening micro- and macro-prudential measures as part of the European Systemic Risk Board (ESRB), as part of the post-crisis restructuring of the European financial architecture (ESRB, 2016).

There also were negative consequences for the financial markets. Money market funds reduced trading activity, as they tried to avoid negative interest rates, by moving to longer-maturity instruments (Riet, 2017). In a few instances, banks that offered variable-rate mortgages, were compelled to adhere to the terms of the contract and pay their borrowers at a negative interest rate (Riet, 2017). Institutional investors, such as life insurance companies and pension funds, also have had operational challenges since they frequently provide liabilities (future pension or insurance payments) at fixed rates (McAndrews, 2015). Their earnings could be at jeopardy if they are limited to investing in products with negative yields which pushes them to take on excessively risky assets to provide a good return (McAndrews, 2015).

Concluding, in addition to advantages to a loose monetary policy there were also major disadvantages to low interest rates for banks and institutional investors. That is why it is not obvious that the ECB's choice for sustained low interest rates was driven by extra-institutional financial influence. Figure 6 illustrates that the strength of evidence in relation to H1.2 has been evaluated as having passed the straw-in-the wind (neither sufficient nor necessary) which affirms its relevance but does not confirm it, while slightly weakening alternative explanations. The strength of evidence in relation to H2.2 has been evaluated as having passed the straw-in-the-wind test, which affirms the relevance of this hypothesis, but it does not confirm it, while slightly weakening alternative explanations. The direction of the evidence is mixed because both sub-hypotheses are relevant but do not get confirmed.

**Figure 6**

*H1.2 and H2.2*

| | | | |
|---|---|---|---|
| H1.2 ECB policy on low interest rates was caused by extra-institutional financial influence of the financial sector. |  | H2.2 ECB policy on low interest rates was caused by intra-institutional entrepreneurship. |  |

#### *4.1.2.2. Quantitative easing*

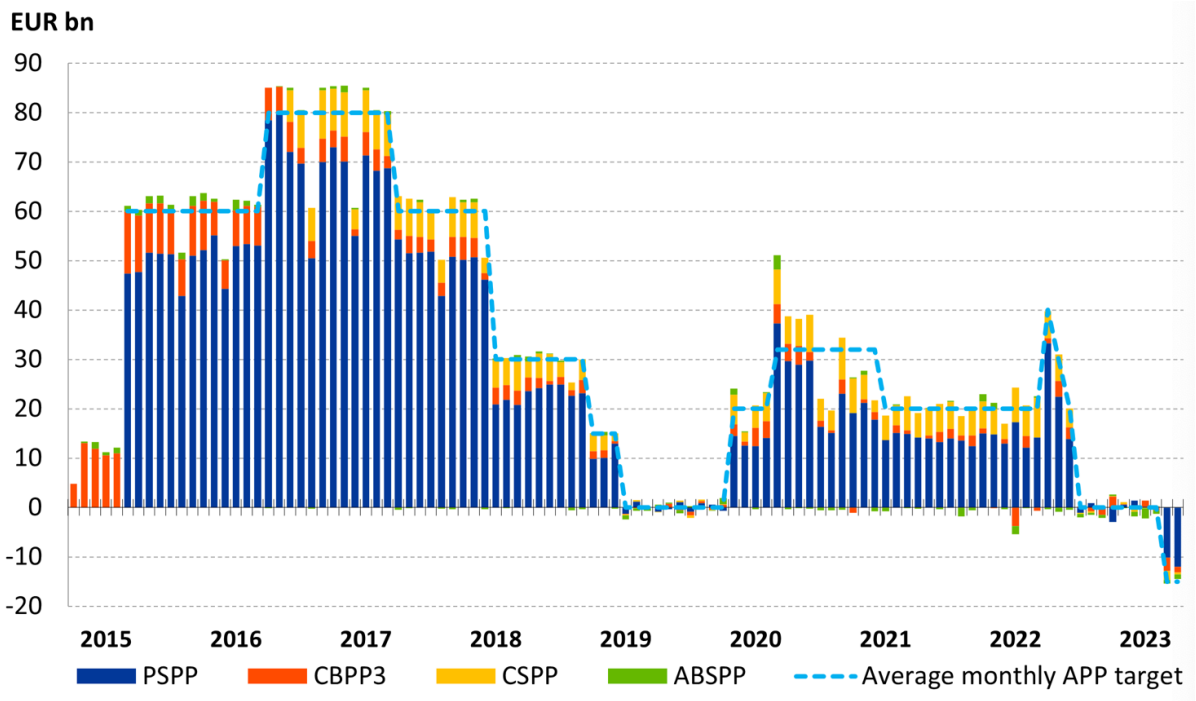
This piece of evidence, regarding quantitative easing, will be discussed to assess the relevance of H1.3 '*ECB policy on quantitative easing was caused by extra-institutional financial influence of the financial sector'*, and H2.3 'ECB policy on quantitative easing was caused by intra-institutional entrepreneurship.'

The ECB has put in place a policy of quantitative easing that entails purchasing significant amounts of government bonds and other financial assets (ECB, 2015). As a result, the value of these assets has increased, which is good for investors and the financial institutions that own them (Riet, 2017).

The Asset Purchase Program (APP), introduced in 2014, of the ECB is a collection of unconventional monetary initiatives. It consists of long-term refinancing initiatives designed to adjust policy to maintain price stability. The package includes four programs: a program for corporate sector purchases (CSPP), the public sector purchasing program (PSPP), the asset-backed securities purchase program (ABSPP) and the third covered bond purchase program (CBPP3) (ECB, 2016; ECB, 2015; ECB, 2014; ECB, 2014). Figure 7 shows the monthly distribution distributed among the four sub-programs of the APP.

**Figure 7**

*Net asset purchases by programme under APP*



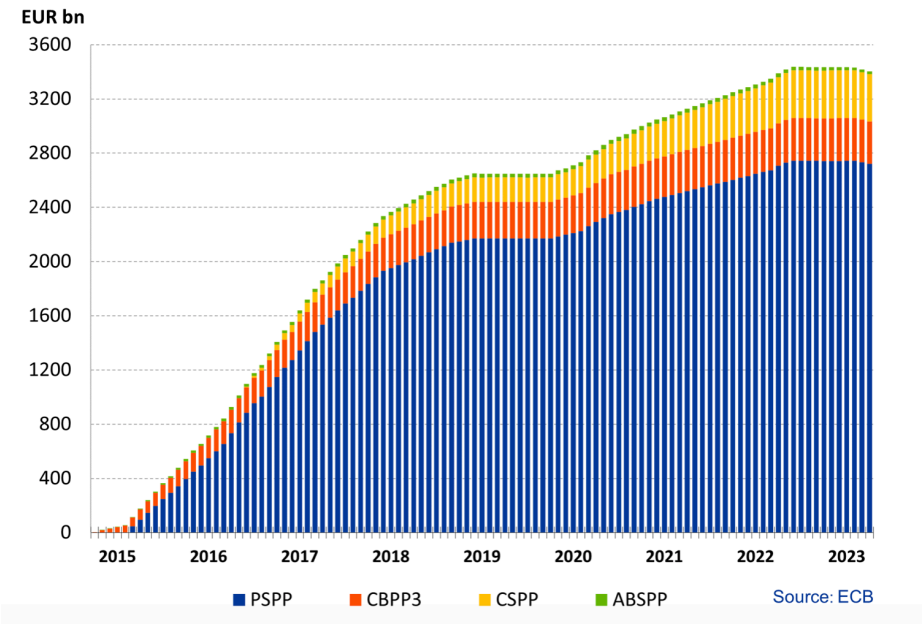

*Note*. From *Asset purchase programmes*, by the ECB, 2023. (https://www.ecb.europa.eu/mopo/implement/app/html/index.en.html). Copyright 2023 by European Central Bank.

Under the PSPP, this program concerns bonds issued by central governments, the most assets are bought up (ECB, 2023). It also involves bonds that are issued by recognized agencies, regional and local governments, international organizations, and multilateral development

banks in the euro area (ECB, 2023). Euro system's stock of APP bonds stood at €3217 billion at the end of April 2023. Figure 8 shows the cumulative net purchases. Again, it shows that most of the bonds are bought under the PSPP (ECB, 2023). The APP produced favorable valuation effects due to the widening of the pool of eligible public sector bonds and the inclusion of corporate bonds, which enhanced the banks' ownership of these assets (Riet, 2017). Banks who used the APP to sell their qualifying public sector assets to the Euro system realized sizeable capital gains as a result (Riet, 2017). According to Andrade et al. (2016), the subsequent decrease in longer-term interest rates and the general increase in asset prices as investors reorganized their portfolios gave additional capital relief, particularly to banks holding a sizable portfolio of government bonds.

**Figure 8**

*APP cumulative net purchases, by programme*




*Note*. From *Asset purchase programmes*, by the ECB, 2023. (https://www.ecb.europa.eu/mopo/implement/app/html/index.en.html). Copyright 2023 by European Central Bank.

In response to the corona crisis, the ECB introduced a new repurchase program at the beginning of March 2020 called the Pandemic Emergency Purchasing Program (PEPP) (ECB, 2020). It is a short-term repurchase scheme for the public and private sectors to offset the risks to the COVID-19 transmission mechanism for monetary policy (ECB, 2020). There will be buyouts in every category used by the APP (ECB, 2020). 1850 billion euros are originally

involved in the scheme (ECB, 2023). The Euro system's stock of PEPP bonds stood at €1713 billion at the end of April 2023 (ECB, 2023). A first important change is that credit quality requirements have deteriorated. The ECB increased the spectrum of eligible assets under the CSPP to include non-financial commercial bonds (ECB, 2020). This assures that all commercial bonds have adequate credit quality to be acquired through CSPP and the Greek government has been given a waiver from the credit quality standards (ECB, 2020). A second major development is that collateral rules are being reduced by altering the collateral framework's risk parameters (ECB, 2020). This is especially relevant in the corporate sector, where the scope of additional credit claims (ACCs) has been enlarged (ECB, 2020). Finally, the ECB says the capital key will continue to be used as a guideline but purchasing under the PEPP will be more flexible (ECB, 2020). As a result, the distribution of purchase flows across asset classes and jurisdictions will fluctuate (ECB, 2020).

Even though banks profited from the quantitative easing policy it is not obvious that the ECB's choice for this policy was caused by extra-institutional influence. That is because this quantitative easing policy was necessary and instrumental in preventing long-term deflation and realizing an average but producing a mild but steadily strengthening rebound in economic growth and inflation (Riet, 2017). The easing of financial conditions overcame credit rationing and was crucial in boosting output growth and inflation (Adrian & Liang, 2016). Also, the ECB showed entrepreneurship through its direct involvement in micro- and macro-prudential measures, such as tightening of prudential oversight, as part of the post-crisis restructuring of the European financial architecture (Riet, 2017).

Figure 9 shows that the strength of evidence in relation to H1.3 has been evaluated as having failed the straw-in-the wind (neither sufficient nor necessary) which weakens this hypothesis while slightly strengthening alternative explanations. The strength of evidence in relation to H2.3 has been evaluated as having passed the straw-in-the-wind test, which affirms the relevance of this hypothesis, but it does not confirm it, while slightly weakening others.

**Figure 9**

*H1.3 and H2.3*

| | | | |
|---|---|---|---|
| H1.3 ECB policy on quantitative easing was caused by extra-institutional financial influence of the financial sector. |  | H2.3 ECB policy on quantitative easing was caused by intra-institutional entrepreneurship. |  |

#### *4.1.2.3. Bailouts*

This piece of evidence, regarding bailouts, is discussed to assess the relevance of H1.4 '*ECB policy on bailouts was caused by extra-institutional financial influence of the financial sector'*, and H2.4 '*ECB policy on bailouts was caused by intra-institutional entrepreneurship.*'

The ECB gave loans to banks that were in risk of failing during the 2008 financial crisis, which were thought to be required to lessen the threat that failing banks posed to financial stability (ECA, 2019). The so-called bailouts of private banks with public money have come under fire for favoring the banking industry over other segments of the economy, such as consumers and small enterprises (Burns, 2020). These loans have put a heavy load on the public and so contributed to the European debt crisis (ECA, 2019).

Bianchi (2016) evaluated the relationship between ex post actions in credit markets and the ex-ante accumulation of risk, using a quantitative equilibrium model of financial crises. It was found that bailouts loosen balance sheet restrictions during a systemic crisis and lessen the impact of the recession (Bianchi, 2016). However, the expectation of such bailouts increases risk-taking, which increases the economy's susceptibility to a financial catastrophe (Bianchi, 2016).

The allocation of money between banks and the sequence in which they were paid, is a perfect demonstration of how financial sector influence works. Top lobbying banks engaged in riskier lending before the crisis which resulted in bad performing loans during the crisis, but they also received the biggest bailouts after the crisis (Igan et al., 2009; Capra, 2011). This is not a unique phenomenon, rather numerous studies show that businesses that engage in lobbying or other forms of political connections benefit financially (Richter et al., 2009; Hochberg et al., 2009; Stratmann, 1991; Cooper et al., 2009; Hill et al., 2013; Fisman, 2001). In fact, participation in politics may be utilized as a type of insurance against economic disasters (Blau et al., 2013; Yu & Yu, 2011). Faccio et al. (2006) showed that enterprises with political ties are more likely to get government bailouts during economic hardship than firms without links in 35 different nations. Blau et al. (2023) demonstrated that engaged banks also receive more and earlier support than non-engaged banks.

Figure 10 illustrates that the piece of evidence regarding bailouts strongly confirms H1.4. The strength of evidence in relation to H1.4 has been evaluated as having passed the smoking gun test (sufficient but not necessary) which substantially weakens alternative explanations. Even though the smoking gun test is sufficient for this specific sub-hypothesis,

this does not mean that the main hypothesis is confirmed yet. Therefore, the analysis will be continued with assessing other pieces of evidence and the belonging sub-hypotheses. H2.4 has been weakened. The strength of evidence in relation to H2.4. has been evaluated as having failed the hoop test, which eliminates this hypothesis while strengthening alternative explanations.

**Figure 10**

*H1.4 and H2.4*

| | | | |
|---|---|---|---|
| H1.4 ECB policy on bailouts was caused by extra-institutional financial influence of the financial sector. |  | H2.4 ECB policy on bailouts was caused by intra-institutional entrepreneurship. |  |

### 4.1.3. Internal risk-modelling and banking supervision

This piece of evidence, regarding internal risk-modelling and banking supervision, is discussed to assess the relevance of H1.5 '*ECB policy on internal risk-modelling and banking supervision was caused by extra-institutional financial influence of the financial sector'*, and H2.5 '*ECB policy on internal risk-modelling and banking supervision was caused by intra-institutional entrepreneurship.*'

Internal risk-modelling is the process by which banks determine the degree of risk attached to their financial activity (Plosser & Santos, 2014). By employing their own models, which may be different from the standardized models used by regulators, banks may measure and manage their risks and estimate their capital adequacy (Plosser & Santos, 2014). There are worries that internal risk-modelling may be used to fudge risk evaluations and permit banks to maintain less capital than is necessary, which might ultimately cause financial instability (Plosser & Santos, 2014). The reason banks do so is that capital requirements make it expensive to report risk which results in downward-biased risk models (Plosser & Santos, 2014).

In response to these worries, the advanced internal ratings-based method and the foundation of the internal ratings-based approach of the Basel framework were both subject to several adjustments proposed by the Basel Committee on Banking Supervision (BCBS) in March 2016 (BIS, 2016). Specifically, it proposed to remove the option to employ the internal ratings-based (IRB) techniques when it is determined that model parameters cannot be

calculated sufficiently reliably for regulatory capital purposes (BIS, 2016). If IRB techniques remain available, exposure-level, model-parameter floors should be adopted (BIS, 2016). In addition, parameter estimation techniques should be specified more specifically to decrease risk weighted asset (RWA) variability for portfolios when IRB approaches are still accessible (BIS, 2016).

It is safe to say bankers were not thrilled to welcome the new BCBS proposals. Bankers were concerned that the proposals could worsen systemic risk and reduce corporate portfolio profitability for European lenders (Verma, 2016). Gerrit Zalm, chairman of ABN Amro in 2016, and his Basel representatives advocated for a local judgment regarding risk weighting, provided there is sufficient local history and if the law of big numbers applies (Verma, 2016). According to Zalm, mortgages and loans carry completely different risks due to differing legal and tax systems across jurisdictions (Verma, 2016). Wiebe Draijer, chairman at Rabobank in 2016, warned for the macroeconomic impact of the BCBS proposals, stating it would limit the amount of credit to the economy (Verma, 2016). These are just two specific examples that demonstrate how the financial sector can use discourse to influence financial policymaking.

Around the same time that the BCBS published its proposal, the ECB kickstarted a large-scale evaluation of banks' internal models (the TRIM project) from 2016 to 2021. The ECB is the competent body under the Single Supervisory Mechanism (SSM) for all banks designated as important institutions, whereas banks classed as less significant institutions are directly overseen by national competent authorities (Fiordelisi et al., 2017). The ECB's positioning on IRB techniques was much less strict than the positioning of the BCBS. The ECB stated that inconsistencies and unjustified (i.e., non-risk-based) variability of risk-weighted assets were to be reduced by making sure banks adhere to the regulations set out by regulators (ECB, 2021). Even though the ECB acknowledges that standardized models might not fully account for all the distinct risks that banks experience, especially in complex financial operations, it was reluctant to impose severe restrictions on internal risk-modelling (Bowman, 2017). The ECB reasoned that since internal models are customized for each bank, risk may be estimated more accurately. Ultimately this should result in a more stable financial system, better risk management and more effective use of money (ECB, 2021).

The ECB's reluctance to restrict internal risk modeling combined with the TRIM project fueled the Basel-ECB battle about the internal ratings-based approach. Critics claim that the ECB's hesitation to limit internal risk modeling is a cause for concern, leaving European banks insufficiently capitalized, and taxpayers exposed (Stiefmüller, 2022). They

contend that it would result in inconsistent risk evaluations, which might eventually reduce the efficacy of regulatory control and a greater risk of another financial crisis (Stiefmüller, 2022).

Figure 11 illustrates that the strength of this piece of evidence in relation to H1.5 has been evaluated as having passed the hoop test (necessary but not sufficient) which strengthens this hypothesis, while somewhat weakening alternative explanations. This is related to the specific examples of bankers advocating for local judgment regarding risk weighting. The strength of evidence in relation to H2.5 has been evaluated as having failed the straw-in-the-wind test (neither sufficient nor necessary). This is due to the ECB's reluctance to regulate internal risk-modelling and the watering down of the BCBS proposals. This weakens the hypothesis, and it slightly strengthens other hypotheses.

**Figure 11**

*H1.5 and H2.5*

| | | | |
|---|---|---|---|
| H1.5 ECB policy on internal risk-modeling and banking supervision was caused by extra-institutional financial influence of the financial sector. |  | H2.5 ECB policy on internal risk-modeling and banking supervision was caused by intra-institutional entrepreneurship. |  |

### 4.1.4. High frequency trading and the financial transaction tax

This piece of evidence, regarding high frequency trading and the financial transaction tax, will be discussed to assess the relevance of H1.6 '*ECB policy on high frequency trading and the financial transaction tax was caused by extra-institutional financial influence of the financial sector'*, and H2.6 '*ECB policy on high frequency trading and the financial transaction tax was caused by intra-institutional entrepreneurship.'*

The development of high-frequency trading (HFT) recently resulted in a significant reduction in the amount of time that information had to travel between venues and participants (Clarke, 2014). High-speed computer algorithms quickly create, send, and (sometimes) cancel many orders while making extremely modest gains on each trade's entry or exit (Clarke, 2014). To receive and respond to information on the supply and demand of trades in order books and execute transactions more rapidly than other players, HFT depends on the employment of algorithms and the superior latency gained via co-location (proximity to the exchange venue) (Vaananen, 2015). It is difficult to draw a clear-cut conclusion about

how HFT affects equity markets in general and specifically the market microstructure (Zaharudin et al., 2021). These technology developments are thought to facilitate better and quicker transactions, reduce transaction costs, and increase market efficiency and liquidity (Sadaf et al., 2021).

Concerns over how HFT affects financial markets and how central banks should regulate it have grown over the past few years. One of the main issues is the potential for flash crashes, whereby HFT-caused abrupt and quick market changes can create severe market disruptions (Jones, 2013). The transition from human-centered trading intelligence to machine algorithmic trading increases the complexity of the financial market and socioeconomic risk.

This has resulted in new regulatory mechanisms, included in the Market Abuse Regulation (MAR) and in MiFID II. The MAR offers a framework for identifying and combating abusive trading techniques, including HFT (EU, 2016). The MAR mandates that companies using high-frequency trading (HFT) register with national authorities and submit comprehensive information about their trading technology and methods (EU, 2016). MiFID II is another legal framework designed to address the technology hazards associated with the current trading paradigm (Čuk & Waeyenberge, 2018).

The ECB has an important role in advising the European Union on such financial regulations (Canepa, 2016). However, due to a lack of a standard definition of HFT, regulators can have different perceptions of how strict it should be regulated (Zaharudin et al., 2021). In 2016, the ECB was reluctant to strictly regulate HFT, fearing it would reduce the ease of purchasing and selling of financial assets at a consistent price by squeezing market liquidity (Canepa, 2016). Rather, the ECB wanted a gradual approach to regulating HFT, starting with quoting limitations, focusing on kill switches and message throttling (ECB, 2016). A kill switch can stop all trading activity under critique circumstances while message throttling is setting of limits on the number of messages and connections that can be processed by trading platforms as to not disrupt the system (ECB, 2016). The ECB was not in favor of minimum exposure times or order-to-trade rations, thinking they would cause potential harm to market resilience and financial stability (ECB, 2016).

Critics judged the ECB's reluctance as favoring the financial industry, stating HFT traders have excessive advantages over individual investors while causing unexpected, significant market swings (Hoium, 2014; Wiener-Bronner, 2018). The German Bundesbank took a more stringent approach and advocated that orders from traders should be held for a brief period to prevent market makers from engaging in trading when there is general stress (Stafford & Jones, 2016). Other proponents of HFT regulation include setting speed caps,

fining companies that breach order-to-transaction ratios, or even banning the practice entirely (Goldstein, 2013; Dubner, 2011; Medina, 2022).

Another critique on the ECB focusses on its lack of constraints on financial activities, specifically its redesign of the European Financial Transaction Tax (FFT) to minimize its impact (Gabor 2016; Kalaitzake 2017, 719; Kastner 2017, 13; Fontan, 2018). An FFT is a tax on the acquisition and disposal of financial assets (Klein, 2020). This would mean that HFT firms pay the tax twice since they buy and sell securities simultaneously, resulting in a decline of HFT trading (Klein, 2020). Kastner (2018) describes how financial industry groups advocated during different stages of the policy debate with the aim of watering down the FFT proposal. At the beginning, they were not much successful due to high salience and public pressure in the post-crisis regulatory environment (Kastner, 2018). Much later in the policy process, these industry groups used a framing strategy, deploying arguments concerning broader societal goals, building coalitions with business groups outside of finance and presenting scientific evidence (Kastner, 2018). This is a very specific example of the financial industry using discourse and lobbying to influence financial regulation.

However, the ECB's caution regarding a FFT or other stringent HFT regulation cannot be only attributed as a direct consequence of financial sector influence. The ECB has the difficult task of balancing the interests of the financial sector and the broader European economy. When new financial technologies are invented, it is not always clear to what degree it should be regulated. Overregulation can also be harmful for liquidity availability and stringent regulations has shown to drive investors out of developed markets into emerging ones outside the European Union (Cave, 2013; Vieira, 2018). Russia and Singapore have seen an increase in HFT trading, due to little regulation (Medina, 2022). This has likely to have an impact on the broader European economy as well. Offshoring HFT may expose the European markets to the danger of financial loss and domestic governments are less able to interfere in serious unethical behavior in the global marketplace while the emerging market might not have the right legal framework to do so (Medina, 2022).

Figure 12 illustrates that the strength of evidence in relation to H1.6 has been evaluated as having passed the smoking gun test (sufficient but not necessary) which substantially weakens alternative explanations. It passed the smoking gun test because this is a very specific example of how industry groups used a framing strategy to minimize the impact of HFT regulation. They did so by deploying arguments concerning broader societal goals, building coalitions with business groups outside of finance and presenting scientific evidence. Even though the smoking gun test is sufficient for this specific sub-hypothesis, this

does not mean that the main hypothesis is confirmed yet. Therefore, the analysis will be continued with assessing other pieces of evidence and the belonging sub-hypotheses. The strength of evidence in relation to H2.6 has been evaluated as having passed the hoop test (necessary but not sufficient) which affirms the relevance of this hypothesis, but does not confirm it, while somewhat weakening alternative explanations. It passed the test because it has been ongoing technological changes that required a regulatory response, due to increasing financial market complexity and systematic risks. The ECB has sought the equilibrium between market efficiency and integrity and has based its proposals on scientific research papers.

**Figure 12**

*H1.6 and H2.6*

| | | | |
|---|---|---|---|
| H1.6 ECB policy on high frequency trading and the financial transaction tax was caused by extra-institutional financial influence of the financial sector. |  | H2.6 ECB policy on high frequency trading and the financial transaction tax was caused by intra-institutional entrepreneurship. |  |

### 4.1.5. Climate risk stress test

This piece of evidence, regarding climate risk stress test, will be discussed to assess the relevance of H1.7 '*ECB policy on climate risk stress test was caused by extra-institutional financial influence of the financial sector'*, and H2.7 '*ECB policy on climate risk stress test was caused by intra-institutional entrepreneurship.'*

According to Article 100 of the Capital Requirements Directive IV (CRD IV), the ECB is obligated to conduct yearly stress tests on monitored companies as part of its Supervisory Review and Evaluation Process (SREP) (ECB, 2022). The ECB conducted a climate risk stress test among the important institutions in 2022 (ECB, 2022). Risks associated with climate change and the move to net zero carbon emissions exist for individuals, businesses, and the financial industry (ECB, 2022). Thus, according to the ECB, exposure to environmental and climate-related risks is one of its strategic goals for 2022 to 2024 (ECB, 2022).

The purpose of the exercise was to evaluate the banks' capacity for conducting internal stress tests on climate risk (ECB, 2022). It specifically investigated the development of

frameworks for stress-testing climate risk that banks have previously made (ECB, 2022). Also, the ECB investigated the ability of banks to create climate risk variables, a preliminary step towards creating estimates for climate risk stress tests (ECB, 2022). Furthermore, the ECB investigated the ability of banks to generate estimates for stress tests on climate risk (ECB, 2022). At last, the ECB investigated the acute physical risk occurrences that banks are exposed to as well as transition risks (both short- and long-term) (ECB, 2022).

There is an increased involvement of the ECB in assessing banks' short-term vulnerabilities and long-term strategies to cover transition risks (ECB, 2022). These could be credit risks, market risks, reputational risks, and operational risks. The ECB strongly challenges the financial sector to raise the bar when it comes to approximating GHG emissions, climate risk stress testing frameworks and factoring climate risk into their credit risk models (ECB, 2022). Specifically, banks, need to improve their long-term strategic planning, such as setting green transition strategies and goals, considering the non-negligible profits earned by funding carbon-intensive sectors (ECB, 2022).

European NGO's such as Finance Watch have urged the ECB that it is not enough, stating fact that most exposures to the most carbon-intensive industries are held by globally significant institutions (Burns, 2022). They warn for the risk of returning to a too-big-to-fail situation due to risk concentration in the most systemically important institutions (Burns, 2022).

Figure 13 illustrates that the strength of evidence in relation to H1.7 has been evaluated as having failed the straw-in-the-wind test (neither sufficient nor necessary) which weakens this specific hypothesis, while slightly strengthening other explanations. It has failed the straw-in-the-wind test because the climate risk stress test increases the regulatory burden for the financial sector and in the long-term limits their profits earned by funding carbon-intensive sectors. Right now, it is not found that the ECB has watered down policy proposals in response to lobbying activities from the financial sector. However, this risk report came out in 2022 so it is possible that in the future, the financial sector will try and influence the policy responses that come from the findings of this report. The strength of evidence in relation to H2.7 has been evaluated as having passed the hoop test (necessary but not sufficient) which affirms the relevance of this hypothesis, but does not confirm it, while somewhat weakening alternative explanations. It has passed the hoop test because it has been ECB entrepreneurship and vision, spurred on by European NGOs, that has driven the ECB to increase regulatory burden on the financial sector instead of maintaining the status quo regarding investment choices that impact the climate.

**Figure 13**

*H1.7 and H2.7*

| | | | |
|---|---|---|---|
| H1.7 ECB policy on climate risk stress test was caused by extra-institutional financial influence of the financial sector. |  | H2.7 ECB policy on climate risk stress test was caused by intra-institutional entrepreneurship. |  |

## 4.2. Financial sector side

The ECB has come under attack from certain groups for what they claim to be obscure decision-making procedures, particularly regarding its relations with the financial industry. This has raised worries that the ECB would be making choices that help the banking industry without enough control or public scrutiny. To evaluate the financial sector side, the focus lays on lobbying fora, advisory groups and financial associations representing different sub-sectors of the business. Reports and studies of European NGO's, research- and campaign groups (e.g., Finance Watch and Corporate Europe Observatory), aiming for sustainable finance, are also evaluated.

### 4.2.1. Lobbying fora

This piece of evidence, regarding lobbying fora, is discussed to assess the relevance of H1.8 '*Lobbying fora are a demonstration of extra-institutional financial influence of the financial sector'*, and H2.8 '*Lobbying fora are a demonstration of intra-institutional entrepreneurship.'*

Lobbying can function as a check on regulators' tendency to keep banks under tight control in the wake of the financial crisis. It is not inherently bad. However, it becomes a democratic problem when the financial industry has privileged access to policymakers over other societal and interest groups. The financial lobby outspends other (public) interests by a ratio of more than 30 in terms of lobbying the EU (Wolf et al., 2014). They employ around 1700 lobbyists and spend over €120 million annually on lobbying in Brussels (Wolf et al., 2014). The financial sector outnumbered trade unions and civil society organizations by a ratio of more than seven when it came to influencing the post-crisis EU laws, and its dominance was significantly greater when staffing levels and lobbying costs were considered (Wolf et al., 2014). When specifically focused on the ECB, it is found that there are 500

financial lobbyists (Haar, 2017). From a total of 22 advisory groups, with 517 available seats, 508 belong to representatives of private financial institutions (Haar, 2017).

An important venue where lobbying takes place is the MEP-industry fora, which are funded by big lobby groups and consultancy agencies in Brussels (CEO, 2009). The Forum for the Automobile and Society (FAS) and the European Internet Foundation (EIF) are two examples. (CEO, 2010). Already in 2006, Corporate Europe Observatory called for more transparency regarding the financing of the EP's official intergroups and unregistered cross-party groups (CEO, 2006). In March 2008, the EP voted for more transparency regarding interest representatives in the European institutions (EU, 2008).

Another example of a lobbying event was MEPS and banking lobbyists both taking part in the European Parliamentary Financial Services Forum (EPFSF) (CEO, 2010). The aim of this forum was to address financial reform and the dominance of big banks and investment firms (CEO, 2010). In 2010 the EPFSF organized a meeting about derivatives, which are highly contentious and have been dubbed weapons of financial mass destruction by opponents (Paez, 2010). However, the financial sector is strongly opposed to stronger regulation of derivatives and the meeting appeared to be an attempt to persuade MEPS on how to govern the derivates market (CEO, 2010). In the meeting there were just two end-users of financial services included, who were also again strict regulation, and there were no consumer organizations or other opponents of derivatives (CEO, 2010).

Figure 14 illustrates that the piece of evidence about lobbying fora, in relation to H1.8 has been evaluated as having passed the hoop test (necessary but not sufficient) which strengthens this hypothesis, while somewhat weakening alternative explanations. This is related to the financial sector outnumbering trade unions and civil society organizations by a ratio of more than seven when it came to influencing the post-crisis EU laws and because of the specific examples of the big presence of the financial sector in industry fora. It is not strong enough for a smoking gun because this piece of evidence does not mention a specific example of the financial sector lobbying the ECB. But it is strong enough for passing a hoop test because lobbying is one component in the causal mechanism of financial extra-institutional influence. The strength of evidence in relation to H2.8 has been evaluated as having failed the straw-in-the-wind test (neither sufficient nor necessary). This weakens the relevance of this hypothesis while slightly strengthening alternative explanations. This is due to the absence of examples of ECB entrepreneurship in this piece of evidence.

**Figure 14**

*H1.8 and H2.8*

| | | | |
|---|---|---|---|
| H1.8 Lobbying fora are a demonstration of extra-institutional financial influence of the financial sector. |  | H2.8 Lobbying fora are a demonstration of intra-institutional entrepreneurship. |  |

### 4.2.2. Advisory groups

This piece of evidence, regarding advisory groups, will be discussed to assess the relevance of H1.9 '*Advisory groups are a demonstration of extra-institutional financial influence of the financial sector'*, and H2.9 '*Advisory groups are a demonstration of intra-institutional entrepreneurship.'*

Expert financial expert groups which operated during the reform process of shaping EU post-financial crisis 2008 regulation were successful in blocking measures like banking regulation, derivatives, credit rating agencies and accounting regulations (Wolf et al., 2014). An important area of lobbying in the EP are the committees on financial market reforms such as the following three consultations conducted by the ECON Committee (Committee on Economic and Monetary Affairs). The MiFID consultation on general investment regulation in the European Union (ECON, 2011), the Market Manipulation (MAD) consultation (ECON, 2012), and the Coherence of Financial Services Regulation consultation (ECON, 2013), which addressed the entire regulatory framework for European financial markets. From the 259 organizations that participated in total, there was only one trade union (Nordic Financial Unions) and one NGO (Finance Watch) among the top 20 responses (Wolf et al., 2014). Major international and European financial sector federations, such as the International Swaps and Derivatives Association and the Investment Management Association, were the most active participants (Wolf et al., 2014). National industry associations like the German Banking Industry Committee and the British Bankers' Association also took part in all three consultations (Wolf et al., 2014).

Another example is that financial firms have a comfortable majority of the positions as advisors. They have 346 postings, or two thirds of the total, under the ECB's supervision (Haar, 2017). 64 of the 144 organizations with seats in ECB advisory groups are not even included in the EU Transparency record, the EU's lobby record (Haar, 2017). The power is in

the hands of few, with 16 financial organizations taking up 208 seats, including, Deutsche Bank, BNP Paribas, Societé Générale, Citigroup, and Unicredit (Haar, 2017).

Figure 15 illustrates that the piece of evidence about advisory groups, in relation to H1.9 has been evaluated as having passed the hoop test (necessary but not sufficient) which strengthens this hypothesis of extra-institutional financial influence, while somewhat weakening alternative explanations. This is related to the comfortable financial sector majority in taking up advisory seats, the partaking in expert financial expert groups during the reform process of shaping EU post financial crisis regulation and major international financial associations being the most active participants in consultations on financial markets reforms. It is not strong enough for a smoking gun because this piece of evidence does not mention a specific example of the financial sector lobbying the ECB. But it is strong enough for passing a hoop test because these advisory groups are one component in the causal mechanism of financial extra-institutional influence. The strength of evidence in relation to H2.9 has been evaluated as having failed the straw-in-the-wind test (neither sufficient nor necessary). This weakens the relevance of this hypothesis while slightly strengthening alternative explanations. This is due to the absence of examples of ECB entrepreneurship in this piece of evidence.

**Figure 15**

*H1.9 and H2.9*

| | | | |
|---|---|---|---|
| H1.9 Advisory groups are a demonstration of extra-institutional financial influence of the financial sector. |  | H2.9 Advisory groups are a demonstration of intra-institutional entrepreneurship. |  |

### 4.2.3. Financial associations

This piece of evidence, regarding financial associations, is discussed to assess the relevance of H1.10 '*Financial associations are a demonstration of extra-institutional financial influence of the financial sector'*, and H2.10 '*Financial associations are a demonstration of intra-institutional entrepreneurship.'*

Two important representative financial associations that enable political dialogue with central bank officials and political actors are the Institutional Money Market Funds Association (IMMA) and the European Fund and Asset Management Association (EFAMA). EFAMA is a representative association for the European investment management industry

and its primary role is to advocate for the interests of its members, which include asset managers, investment firms, and other stakeholders in the asset management sector (EFAMA, n.d.).

While EFAMA does not have direct regulatory or legislative power, it holds significant influence within the European Union (EU) and plays a crucial role in shaping EU policy and regulations related to the asset management industry. EFAMA does so through engaging with policymakers, regulators, and other relevant stakeholders to provide expertise (EFAMA, n.d.). Other activities include monitoring and analyzing regulatory developments, providing industry research and data, advocating for investor protection and market efficiency, and promoting the growth and competitiveness of the European asset management industry (EFAMA, n.d.). It also serves as a platform for its members to exchange knowledge, share experiences, and collaborate on common issues (EFAMA, n.d.). EFAMA's power lies in its ability to influence policy and regulation, represent the interests of its members, and contribute to the development of a favorable environment for the European asset management industry.

IMMA is an industry association that represents providers of money market funds in Europe. It does not possess any inherent powers itself, but it serves as a collective voice for its members and works to promote the interests of the money market fund industry (IMMA, n.d.). It aims to ensure a well-functioning and efficient money market fund sector by providing guidance, promoting best practices, and sharing knowledge among its members (IMMA, n.d.). Other activities focus on enhancing the understanding and recognition of money market funds, advocating for appropriate regulatory frameworks, and fostering market stability and investor confidence (IMMA, n.d.). It strives to ensure that money market funds operate in a manner that aligns with the interests of investors and supports the efficient functioning of short-term funding markets (IMMA, n.d.). The power of IMMFA lies in its ability to advocate for the money market fund industry and engage with policymakers, regulators, and other stakeholders to shape regulations and standards affecting money market funds.

Figure 16 illustrates that the piece of evidence about financial associations, in relation to H1.10 has been evaluated as having passed the hoop test (necessary but not sufficient) which strengthens this hypothesis, while somewhat weakening alternative explanations. This is related to the significant influence from EFAMA and IMMA within the European Union (EU), who play a crucial role in shaping EU policy and regulations related to the asset management and money market regulations. It is not strong enough for a smoking gun

because this piece of evidence does not mention a specific example of the financial sector lobbying the ECB. But it is strong enough for passing a hoop test because these financial associations are one component in the causal mechanism of financial extra-institutional influence. The strength of evidence in relation to H2.10 has been evaluated as having failed the straw-in-the-wind test (neither sufficient nor necessary). This weakens the relevance of this hypothesis while slightly strengthening alternative explanations. This is due to the absence of examples of ECB entrepreneurship in this piece of evidence.

**Figure 16**

*H1.10 and H2.10*

| | | | |
|---|---|---|---|
| H1.10 Financial associations are a demonstration of extra-institutional financial influence of the financial sector. |  | H2.10 Financial associations are a demonstration of intra-institutional entrepreneurship. |  |

## 4.3. Overview of results

For a hypothesis to be confirmed, it should pass at least one smoking gun test or a doubly decisive test because these are sufficient for establishing causal inference. That is because both the smoking gun test and the doubly decisive test are sufficient for establishing causal inference. The hoop test is necessary but not sufficient, meaning there needs to be more than one piece of evidence that passes the hoop test for establishing causal inference. Passing straw-in-the-wind tests alone is not sufficient because it is neither sufficient nor necessary for establishing causal inference.

In both Figure 17 and Figure 18, the strength of the evidence is shown through the symbols that are expressing the straw-in-the-wind test (1point), the hoop test (2 points), the smoking gun test (3 points) or the doubly decisive test (4 points). The direction of evidence is shown through the colors, the color green means that the evidence is supportive in relation to the main hypothesis (H1), the color red means that the evidence is invalidating in relation to the main hypothesis (H1). When a sub-hypothesis has passed a test, the points are added up, when a sub-hypothesis has failed a test, the points are subtracted from the total outcome.

The main hypothesis (H1) assumes that '*The increased involvement of the ECB in financial regulatory matters is due to extra-institutional financial influence of the financial sector*.' Figure 17 illustrates all discussed pieces of evidence and the sub-hypotheses in

relation to the main hypothesis (H1). It shows whether each sub-hypothesis belonging to each piece of evidence is supported or refuted by the data. This systematic approach enables to draw conclusions on the main hypothesis (H1). Theoretically, the highest possible total score is 40, meaning that all ten pieces of evidence have passed the doubly decisive test. The lowest possible total score is -40, meaning that all ten pieces of evidence have failed the doubly decisive test. H1 has passed four hoop tests, two smoking gun tests, one straw-in-the-wind test while failing three straw-in-the wind tests. From a total positive score of 40, H1 receives a total score of 12, by which the evidence provided sufficient support for the main hypothesis (H1) (See Table 15).

*H1 = - (straw-in-the-wind) + (straw-in-the-wind) - (straw-in-the-wind) + (smoking gun) + (hoop) + (smoking gun) - (straw-in-the-wind) + (hoop) + (hoop) + (hoop)*

*H1 = -1+1-1+3+2+3-1+2+2+2*

*H1= 12*

**Figure 17**

*Direction and inferential weight of evidence, related to H1*

| **H1: The increased involvement of the ECB in financial regulatory matters is due to extra-institutional financial influence of the financial sector.** | | | |
|---|---|---|---|
| **ECB side** | | | **Financial sector side** |
| 1. The global financial crisis and an evolving financial landscape | | | 8. Financial associations |
| 2. Low interest rates | 3. Quantitative easing | 4. Bailouts | 9. Lobbying fora |
| 5. Internal risk-modelling and banking supervision | 6. High frequency trading and the financial transaction tax | 7. Climate risk stress test | 10. Advisory groups |
| **Legend** | | | |
| In relation to hypothesis, evidence is | Strength of evidence | | |
| supportive | Straw-in-the-wind (1 point) | | Doubly decisive (4 points) |
| Invalidating | Hoop (2 points) | | Smoking gun (3 points) |

The rival hypothesis (H2) assumes that '*The increased involvement of the ECB in financial regulatory matters is due to intra-institutional entrepreneurship*.' Figure 18 illustrates all discussed pieces of evidence and the sub-hypotheses in relation to this rival hypothesis (H2). H2 has passed three hoop tests and two straw-in-the-wind tests while failing four straw-in-the-wind tests and one hoop test. From a total possible score of 40, H2 receives a total score of 2 points from a possible positive score from 40, by which the evidence provides slight support for the rival hypothesis (H2).

*H2 = (hoop) + (straw-in-the-wind) + (straw-in-the-wind) – (hoop) - (straw-in-the-wind) + (hoop) + (hoop) – (straw-in-the-wind) – (straw-in-the-wind) – (straw-in-the-wind)*

*H2 = 2+1+1-2-1+2+2-1-1-1*

*H2= 2*

**Figure 18**

*Direction and inferential weight of evidence, related to H2*

| **H2: The increased involvement of the ECB in financial regulatory matters is due to intra-institutional entrepreneurship.** | | | |
|---|---|---|---|
| **ECB side** | | | **Financial sector side** |
| 1. The global financial crisis and an evolving financial landscape | | | 8. Financial associations |
| 2. Low interest rates | 3. Quantitative easing | 4. Bailouts | 9. Lobbying fora |
| 5. Internal risk-modelling and banking supervision | 6. High frequency trading and the financial transaction tax | 7. Climate risk stress test | 10. Advisory groups |
| **Legend** | | | |
| In relation to hypothesis, evidence is | Strength of evidence | | |
| supportive | Straw-in-the-wind (1 point) | | Doubly decisive (4 points) |
| Invalidating | Hoop (2 points) | | Smoking gun (3 points) |

Because the main hypothesis (H1) and the rival hypothesis (H2) both receive a positive total outcome of individual evidence ratings, this means that the combined hypothesis H3: '*The increased involvement of the ECB in financial regulatory matters is due to a combination of extra-institutional financial influence and intra-institutional entrepreneurship'* gets confirmed. However, within the combined hypothesis (H3), extra-institutional influence (12

points) plays a much larger role than intra-institutional entrepreneurship (2 points). This division is highly dependent on which pieces of evidence get added to the analysis. It is not so much that the outcome of the combined hypothesis (H3) would change by using other pieces of evidence. But the division of extra-institutional influence or intra-institutional entrepreneurship, responsible for increased ECB involvement, differs based on the pieces of evidence that gets included or excluded in the analysis.

# 5. Conclusion and discussion

This chapter contains the conclusion and answer to the main research question. Then it discusses theoretical implications, limitations, suggestions for future research and societal implications.

## 5.1. Conclusion

To answer the main research question '*What explains the ECB's increased involvement in financial regulations since the Euro crisis?',* first the two sub-questions will be answered.

### 5.1.1. The first sub-question

The first sub-question is '*What is the role of entrepreneurs within ECB in the ECB's increased involvement in financial regulatory matters since the Euro crisis?'* The sovereign debt crisis was a period in which European countries had high government debts, bond yield spreads in government securities were rising and financial institutions collapsed (Lane 2012). As a result, the ECB got increasingly involved in financial regulations. This was supported by the Single Supervisory Mechanism and the Capital Requirements Directive: two recent EU rules that have given the ECB more authority to regulate banks and other financial organizations (Ferran & Babis, 2013; Christopoulos & Quaglia, 2009). The ECB has also been given additional responsibilities in the field of macroprudential policy, which entails keeping an eye on and acting to reduce systemic risks to the financial system (Cassola et al., 2019). The ECB showed entrepreneurship through its direct involvement in micro- and macro-prudential measures, such as tightening of prudential oversight, as part of the post-crisis restructuring of the European financial architecture (Riet, 2017).

### 5.1.2. The second sub-question

The second sub-question is '*What is the role of the financial sector in the ECB's increased involvement in financial regulatory matters since the Euro crisis?'* As a response to the reform process of shaping EU post-financial crisis, financial institutions increased their lobbying activities, participation in advisory groups, the utilization of financial stakeholder

groups and the use of discourse in public consultations regarding financial regulations. The financial sector influences ECB decision-making using routes of infrastructural-, instrumental-, structural-, discursive- and performative power. These routes of power are then exerted through participation in lobbying fora, advisory groups, and financial associations. As a result, the financial sector has been successful in exerting extra-institutional influence regarding bailouts, internal risk modeling, the banking supervision and high frequency risk modeling.

### 5.1.3. The main research question

The research question central to this thesis is: '*What explains the ECB's increased involvement in financial regulatory matters since the Euro crisis?'* The ECB is aware that the financial sector, a key participant in the economy, has a direct impact on financial stability. Therefore, the ECB's increased involvement in regulatory matters aims to enhance oversight and address vulnerabilities within the financial sector, ensuring a more resilient and stable financial system. By actively monitoring and regulating financial institutions, the ECB aims to prevent another crisis and protect the Eurozone's economic well-being. As a response, the financial sector has increased its lobbying activities. There are clear examples in which the financial sector has been successful in either watering down the original proposals or getting more financial support from the ECB, e.g., bailouts, internal risk modelling and the banking supervision.

Simultaneously, there are clear examples of the ECB showing entrepreneurship and relying on scientific research when determining their policy positions, e.g., high risk modelling, the financial transaction tax, and the climate risk stress test. Their policies of low interest rates caused great operational challenges for the profitability of the banking sector. And even though banks profited from the quantitative easing policy, the reason for the ECB to adopt this policy was out of necessity to prevent long-term deflation, overcoming credit rationing and boosting economic growth. It is therefore not obvious that the origin of the increased involvement policy positioning solely stems from extra-institutional financial influence.

### 5.1.4. Answer to the main research question

The ECB's increased involvement in financial regulatory matters since the Euro crisis stems from the recognition that financial stability is essential for maintaining the overall health of the Eurozone economy. The authority of the ECB is supported by democratically adopted EU rules that have given the ECB more authority to regulate banks and other financial organizations. Their policy positions are initially grounded in scientific research, supported by democratically given authority, and shaped by intra-institutional entrepreneurship. Once financial policy reforms are announced, the financial sector responds by lobbying heavily for their interests and in some cases, they are successful in re-shaping and watering down initial policy proposal in such a way that it would benefit their interests. However, this extra-institutional influence is a response to the ECB's increased involvement in financial regulatory matters, not the foundation of it. That is why the answer to the main research question is:

> *'The ECB's increased involvement in financial regulations since the Euro crisis is primarily caused by extra-institutional financial influence but sometimes by intra-institutional ECB entrepreneurship.'*

## 5.2. Theoretical implications

This section explains the broader theoretical significance and implications of the research findings. It highlights new insights, challenges existing assumptions and fills gaps in the existing body of knowledge. A unique aspect of this research is the discovery of the combination of financial political power and ECB entrepreneurship in causing ECB's increased involvement in financial regulations. Two other contributions are the notion of central bank independence and the relation between central bank independence and price stability.

### 5.2.1. Combining extra-institutional influence and intra-institutional entrepreneurship

The literature review revealed that the financial sector tries to influence financial regulations, using routes of infrastructural-, instrumental-, structural-, discursive-, and performative power

(Braun, 2018; Kalaitzake, 2019; Culpepper, 2015; James et al., 2022; Callon, 1998; MacKenzie et al., 2007). Assembly, 2010).

Even though there are great dangers in the large presence of the financial sector and its capacity to exercise pressure, it is too short-sighted to assume that they influence every single financial regulation. This research has shown that the ECB's increased involvement in financial regulation is primarily caused by extra-institutional financial influence, but in some cases, it has been caused by intra-institutional ECB entrepreneurship.

Each time, the ECB must balance the interests of the financial sector, European member states with very different economies or sovereign debts, and European households. Sometimes this results in legislation that places a large additional regulatory burden on the financial sector, other times it will intentionally or unintentionally benefit the financial sector.

It is also a matter of political preference whether the ECB should regulate and control the financial sector very strictly or whether the ECB should let the free market take its course. For example, NGOs, or researchers, whose goal is to control the financial world will be incredibly critical of any hesitation by the ECB to introduce tougher legislation. Players in the financial markets and third parties dealing with financial sector services are more likely to name the drawbacks of heavy legislation.

When a researcher discusses the interests, positioning, and discourse of the financial sector, it is wise to simultaneously include the reasoning of the economists of the ECB, MEPS, users of financial sector services. In this way, one arrives at a balanced assessment of extent to which the financial sector can influence ECB policy-positioning.

That is why the literature in international relations should include ECB entrepreneurship as another determinant of ECB's increased involvement in financial regulations since the Euro crisis and not solely financial influence. That is because while financial sector influence explains more policy areas (or pieces of evidence), it is theoretically interesting and important that intra-institutional entrepreneurship also plays an important role sometimes. Future research could explore why this happens.

### 5.2.2. Central bank independence in practice

The independence of a central bank marks them off as a unique institutional organ within the apparatus of the state and seemingly more resistant to conventional routes of political influence (Kalaitzake, 2019). Goodhart and Meade (2003) compare its status to the judiciary

by saying that both are purposefully walled off from pressures of partisan scrutiny, political bargaining, compromise, and the inherent vagaries of political events.

Firstly however, this research has demonstrated that the ECB was in fact susceptible for financial political influence regarding low interest rates, bailouts, internal risk-modelling and banking supervision and high frequency trading and the financial transaction tax.

Secondly, this research has found that lobbying fora, advisory groups and financial associations are all demonstrations of extra-institutional financial influence. At the same time, there is not the same level of access for groups advocating for the interests of citizens and the broader society.

Thus, the notion of central bank independence is a legal status whereas in practice central banks might be more susceptible to political and financial influences than their legal independent status might reveal.

### 5.2.3. Inflation and central bank independence

In the past decades central banks, among which the ECB, acquired considerable independence from democratic institutions (McNamara, 2002 & Singleton, 2010). High central bank independence and an explicit mandate to deliver low and stable inflation are seen as important institutional devices to assure price stability (Eijffinger & Hoeberichts, 2008).

The reason that an independent central banker is more inflation-averse than the government is that the central bank has a longer view of the policy process than politicians do (Cukierman, 1992). Also, central bankers can only be concerned with stable inflation, instead of other policy goals such as high employment levels and adequate government revenues (Cukierman, 1992).

However, this research has shown that the ECB has maintained interest rates at historically low levels for many years, making it less expensive for banks to borrow money (Riet, 2017). This unconventional monetary policy is accompanied by unintended side-effects on the distribution of income and wealth, the pace of economic restructuring, the soundness of fiscal policies, financial intermediation, and the stability of the financial sector (Riet, 2017). The financial sector is expected to gain from this approach at the expense of savers who see their returns on deposits decline (Riet, 2017).

Both the ECB's expansionary fiscal policy, money creation and zero percent interest rate strategy contributed to inflation in and outside the euro area. Thus, the notion that an explicit

mandate for highly independent central banks will be more inflation-averse than the government is in practice contestable since ECB's policies did contribute to inflation.

## 5.3. Limitations

This study emphasizes the methodological value and use of process tracing, complementing other forms of research on the intricate political interactions between global finance and monetary policy. It was possible to modify the method to fit this research problem which demonstrates that process tracing can be used to study the influence of the financial sector on the ECB's increased involvement in financial regulations since the Euro crisis.

It must be acknowledged, though, that there were several difficulties encountered during the procedure. First, process tracing relies on merging a variety of bits of data. This reliance on secondary data and analysis conducted by other researchers has a substantial negative influence on the credibility and validity of the results. Despite best efforts, it is possible that certain bits of important information went unnoticed despite best attempts to understand the ECB's increased involvement in financial regulation.

Secondly, several of the causal mechanism's components, notably those that dealt with lived experiences with instrumental power, closed policy circles, revolving doors and extra-institutional players, were unable to get the right amount of data that was hoped for. If a process tracing investigation had been prepared over a longer time frame and including in-depth interviews with ECB board members and banking industry experts, this may have been avoided.

Thirdly, it could be challenging to assess the direction and significance of the evidence pointing to elements of the causative process. For instance, it was necessary to determine if certain circumstances were isolated anomalies or the rule for that occurrence. However, given the nature of the study and the lack of resources for long-term primary data collection, particularly for hard-to-reach respondents, this was not possible in this instance.

A fourth potential pitfall of this study is that just one author independently assessed the evidence along the four tests (e.g., straw-in-the-wind test, hoop test, double decisive test, and smoking gun test). In this case, there was a lack of co-researchers that could validate the ratings.

## 5.4. Suggestions for future research

The first suggestion for future research relates to the first and second limitation that are mentioned in the previous sub-section. The first limitation is the reliance on a variety of bits of secondary data and the second limitation is the lack of first-hand experience with ECB policy positioning and financial political power. The only way to address these two limitations is for future research to collect new data. This should be qualitative data in the form of interviews with economists, ECB professionals, bankers, institutional investors, fund managers, members of the European Parliament and NGOs. These people are most likely to openly talk lobbying processes and influence from the financial sector if they are retired, have left the sector, or can talk anonymously. Another option would be for researchers and journalists to work or shadow internally at the ECB, and at major financial institutions. This makes it possible to experience how the policy process functions within the ECB, how the financial sector determines its positioning and whether there are substantial adjustments within the ECB in response to the position of the financial sector. This kind of practice should be done for a period ranging from ten to twenty-five years because financial legislation takes an incredibly long time to create, it is often revised, and it also takes time for the impact of legislation to become apparent. For example, the first Basel Capital Accord was published in 1988, enforced in law in 1992 (Chen, 2022). The second Basel framework was published in 2004 and the third Basel framework was published in 2010 (Chen, 2022).

The second suggestion is relating to the third limitation, that is the difficulty of assessing the direction and significance of the evidence pointing to elements of the causative process. To solve this limitation, future studies about the ECB-financial sector relationship using process tracing would make a stronger case by consulting an entire team when facing uncertainty in determining the weight and direction of evidence. The judgement of evidence should happen through collective decision making based on deep prior knowledge about the subject, context, and environment. This way of work might result in conflicting views, but this can be solved by making judgement calls. Most importantly, all assessment of the evidence should be made considering the reality of the wider global financial landscape.

## 5.5. Societal implications

At the end of this research, questions are raised concerning societal implications. Should the ECB continue to use unconventional monetary policies or not? Should central banks and governments continue to work through financial markets or not?

With central banks rising in institutional prominence, they have a fundamental impact on governing financial markets. For all its benefits, the market-based financial system has also led to increasing societal inequality (Davis & Kim, 2015). That is why we need central banks that act in the public interest, independently from financial markets. The expanded capabilities of the ECB and its power in shaping new institutions permanently alters its role. Thus, there is a need for a renewed debate on the precise role the ECB should have and whether ECB should continue to use unconventional monetary policies after a crisis. The interest of all European citizens should be prioritized over the interests of the private financial sector. Also, there is a need for a better accountability mechanism for EU member states that continuously fail to diminish their government debt because that is part of the reason that the ECB continues to use unconventional monetary policies.

Understanding how deeply private financial markets are entwined with governments and central banks (and their obligations) is really a crucial first step towards a more democratic and healthy financial system. Infrastructural entanglement and routes of financial political power raise normative concerns about the paradox of state action in financialized economies. There is a coexistence of extreme vulnerability and extraordinary repertoires for government action. On the one hand, state-led financial innovation and market-based governance can boost state capability. On the other hand, a higher dependence on market-based state agencies tends to increase the financial sector's ability to build infrastructure. Therefore, this research urges great caution because working through financial markets might restrict government capacity to help ordinary European citizens, instead of just the financial industry.

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