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LIST OF ABBREVIATIONS

BOE	Bank of England
BOJ	Bank of Japan
CBI	Central Bank Independence
CPC	Communist Party of China
CPI	Consumer Price Index
DC	Democrazia Cristiana
ECB	European Central Bank
EEC	European Economic Community
EMS	European Monetary System
EMU	European Monetary Union
ERM	European Exchange Rate Mechanism
IMF	International Monetary Fund
LDP	Liberal Democratic Party
MOF	Ministry of Finance
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Squares
PBC	People's Bank of China
PCI	Partito Comunista Italiano
PLI	Partito Liberale Italiano
PRC	People's Republic of China
PSDI	Partito Socialista Democratico Italiano
PSI	Partito Socialista Italiano
RCI	Rational Choice Institutionalism
WWI	World War I
WWII	World War II

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1. INTRODUCTION AND RESEARCH QUESTION

Central banks are not only a crucial part of the economic system, they are also political institutions. As such, they have evolved over time and have undergone several important changes. A global wave of central bank reforms can be observed during the 1990s, which led to an institutional strengthening of central banks with respect to their relationship with other parts of the executive. Those reforms were mainly justified on economic grounds. In other words, proponents argued that greater autonomy for central banks would lead to superior macroeconomic outcomes.

In part, the reforms were a response to the failure of the economic policies of the 1970s to deliver price stability. On the other hand, academic economists had changed their minds on the role of monetary policy in economic policymaking. Hence, the idea of delegating policy decisions to an independent institution to improve economic efficiency was based on both historical experience and academic economic theory.

But while many countries implemented central bank reforms, they did so to very different degrees. The question how these differences can be explained is highly relevant not only to economists but also from the perspective of political science. If delegation to autonomous policymaking bodies is merely an improvement in economic efficiency, it is somewhat puzzling why some countries refrain from taking the steps necessary to realize those gains.

If a country's economic performance could be improved further by granting greater independence to central banks, why do countries opt for lesser degrees of autonomy and accept inferior results? Assuming that political actors are rational—that is, they act in accordance with their preferences—it can be concluded that they must perceive the costs of more autonomous central banks as higher than the benefits they would receive from delegating more decisions to an independent institution.

The theoretical considerations underlying the concept of central bank independence (CBI) usually assume a fundamental time-inconsistency problem at the heart of monetary policymaking. Politicians—so the argument goes—are tempted to use monetary policy for short-term means like creating a favorable economic environment to influence their prospects at the ballot box. By manipulating interest rates, they create a boom-and-bust economy or simply end up with higher inflation than optimal.

In contrast, an independent central bank can focus solely on price stability and does not have to waste a thought on re-election. If an institutional setting is designed properly,

central bankers do not even have to worry about being replaced by upset politicians because they simply do not have the power to fire central bankers just because they do not agree with their actions.

This logic provided the underlying framework for delegating monetary policy to independent central banks. In this view, however, it remains a bit puzzling why politicians would agree to delegate monetary policy in the first place. They have preferences, and central bankers are assumed to have different preferences. Otherwise delegation would be obsolete. But if politicians are rational, and act in accordance with their preferences, they should not have any reasons to constrain themselves from influencing monetary policy. After all, greater CBI is a significant constraint on parliamentary policymaking (Strøm et al. 2003, 683).

Obviously, this was not how things turned out in the real world. There are two possible answers. First, politicians are not rational, they do not act in a strategic manner, and they do not act in accordance with their preferences, but rather in an unpredictable way that is not founded on any reasoning at all. Given everything we know about politics, this seems highly unlikely. The other possibility is that while political actors do indeed face costs associated with delegation of monetary policy, their expected benefits outweigh them. In that case, delegation becomes rational. What remains unsolved, however, is why countries delegate to varying degrees. This is the question this thesis addresses.

What explains the differences in central bank reforms with regard to the degree of independence?

As discussed, from a purely efficiency point of view it makes no sense to refrain from realizing all gains associated with independent central banks. But possibly a pure efficiency perspective neglects the political side. After all, the delegation of policymaking has to be implemented by political actors. Those actors have different motives and different goals. To explain the varying degrees of central bank reforms, these have to be taken into account.

This thesis is based on a simple assumption: the varying degrees of central bank reforms do not follow an economic logic, but a political one. The reasons for differences in delegation have to be found in politics, not in economics. In particular, motives of the political actors involved explain why some countries end up with more far-reaching reforms of their central banks than others.

Generally, it is assumed in this thesis that politicians are motivated by either policy, office or votes (Müller and Strøm 1999) in the case of liberal democracies and by power, personal enrichment and security considerations¹ in autocracies (Mueller 2003, 410–411). With regard to central bank reforms in specific, the focus is on two main rationales behind the decision for delegation. First, it is assumed that political actors aim to enhance their credibility by establishing independent central banks. The need for demonstrating credibility can arise from several sources, but this thesis focuses on two of the most important ones. One reason is an obvious failure of the existing institutional setting. In the case of monetary policy, such a scenario is usually some kind of crisis: either a financial crisis, a currency crisis, or an inflation crisis. Crises demonstrate that the current setting is not working, and politicians have to respond if they do not want to be in danger of being replaced.

The second reason is a lack of credibility caused by a party's ideology. Standard assumptions about partisan preferences in monetary policy are that left-wing governments consider fighting unemployment as more important than tackling inflation while right-wing governments favor price stability over employment (Goodman 1992, 212–213). Hence, left-wing parties have a “credibility deficit” in monetary policy, which can be counteracted by delegating monetary policy to a more credible institution.

Apart from credibility, the second main driver is uncertainty. Political actors do not stay in office forever. In liberal democracies, every election has the potential to remove a politician from power. And even in authoritarian systems, rulers have to fear coup d'états or revolutions. The successors might have very different policy preferences in all kinds of areas, including monetary policy. But if the power over monetary policy is delegated to an independent institution, it is be much more difficult for the new government to implement its preferences. This even holds true for authoritarian systems, where the reliance on financial markets often makes it impossible for rulers to strip central banks of their institutional independence because the risk of capital flight or rising bonds yields is too high. By delegating monetary policy, the current government is trying to tie the hands of its successors.

In this thesis, central bank reforms are not understood solely as policy changes, but analyzed within a broader perspective of institutional change. Therefore, the theoretical framework builds upon the political science literature on institutional change and rational

¹ The term “security” in this context refers to the certainty of not being replaced.

choice institutionalism (RCI), which assumes that political actors try to shape institutions in accordance with to their preferences in order to maximize their utility (Shepsle 2006a).

This is also where this thesis departs from the existing literature on variation in CBI. Most studies relate the degree of autonomy of central banks to economic, political or historical variables in the respective countries to explain why some countries have more independent central banks than others. In other words, they try to answer a question of institutional design. In contrast, this thesis is interested in institutional change. It does not try to analyze changes in legislation detached from the political actors that decide upon them, but rather takes their motives and their reasoning into account. By doing so, it aims to demonstrate that the political context of central bank reforms is crucial for understanding their respective contents.

This thesis is structured as follows. In Chapter 2, a theoretical framework is developed. One section provides an overview of the basic assumptions of RCI. The next section addresses the role of central banks within the executive of a country and the historical development of this relationship. The third section in the first chapter then specifically discusses the concept of CBI. Chapter 3 includes a quantitative analysis of 61 central bank reforms in different countries in the time period from 1985 to 2009. Chapter 4 discusses four cases of major central bank reforms in more detail. Finally, a conclusion will be drawn.

2. THE THEORETICAL FRAMEWORK

This chapter is structured as follows. The first section (2.1) discusses the implications of rational choice theory for institutional design and institutional change in general. The next section (2.2) addresses the role of central banks within the executive and the economic system, both from a historical perspective and a theoretical one. It further discusses fundamental problems with regard to the relationship between central banks and the rest of the executive as well as institutional responses to these problems. The third section (2.3) of this chapter specifically addresses the concept of CBI. It discusses its theoretical underpinnings and provides an overview of the empirical record of independent central banks and the determinants of variations in degrees of CBI across countries. The fourth section (2.4) bridges the gap between section 2.1 on institutional change and section 2.3 on CBI by discussing how political motives lead to institutional change. Based on these considerations, the final section (2.5) proposes three hypotheses.

2.1. A rational choice approach to studying institutional change

Political institutions are the foundation of the political system. In that sense, the study of institutions is central to understanding the workings of a political system. In political science, institutions are usually defined in a much broader sense than in everyday language. The term is not limited to organizations in political life, but refers to all kind of rules that limit the room for political actors to maneuver. In other words, institutions are rules that guide actors' behavior by both restricting and enabling it (Diermeier and Krehbiel 2003, 127).

These rules are not bestowed upon by a higher power, but result from complex interactions and power struggles within the political system. So while institutions in the short run might be exogenous limitations for political behavior, they are essentially endogenous to the political process in the long run. This observation bears an important implication. If institutions are results of the political process rather than exogenous restrictions, it follows that they should not be considered as fixed. Political actors are able to change them and so it is likely that these powers are used to shape institutions in accordance with their preferences (Shepsle 1989, 139–141). Hence, political institutions are prone to change.

The crucial theoretical question that arises from this assessment is under which circumstances these changes occur. Institutions are not in flux, they do not change

permanently. Given that involved actors have the power to change institutions, it follows that there must be some kind of state in which no involved actor has an incentive to deviate from the status quo. Such a state is referred to as equilibrium (Shepsle 1989, 137). The equilibrium concept is central to the theoretical approach of RCI.²

One main assumption of the RCI school of thought is that an analysis of political institutions has to start by taking political actors and their motives into account. It is assumed that political actors hold certain preferences and aim to maximize their utility in accordance with these preferences (Diermeier and Krehbiel 2003, 128). With regard to institutions, they try to shape them to get the most out of them. Their behavior is determined by a cost-benefit-analysis, which means they will push for reforms as long as their expected benefits exceed their expected costs (Shepsle 1989, 144; Sieberer et al. 2016, 68). In other words, as long as an involved actor perceives the benefits of further change to be higher than expected costs, he or she will try to realize the gains. If this is no longer the case, an equilibrium is reached. Such equilibria, however, should not be considered permanent. Two major sources of distortions of institutional equilibria are external shocks and changed actor constellations (Sieberer, Müller, and Heller 2011, 953). Disturbed equilibria result in institutional change. This process is further discussed in Section 2.1.6.

2.1.1. Institutions as game forms

Rational choice literature on institutions can be divided into two basic perspectives. These are referred to as “institutions as game forms” on the one hand, and “equilibria of more fundamental strategic interaction” on the other hand (Shepsle 2006a, 1032–1035; Shepsle 2006b, 24–27). In the former, institutions are approached as rules within strategic games are played. These rules shape actors’ behavior by constraining them and limiting their room to maneuver. Actors’ options are limited by institutions and, hence, the form of an institution crucially influences the outcome of a game. In terms of game theory, such settings are referred to as game forms. This theoretical approach is especially useful when studying the outcome of institutions, i.e., what effects variations in institutions have on certain variables.

According to Shepsle (2006b, 25), game form models can be traced back to Downs’ (1957) classic work on rational voting. In Downs’ model, two candidates are competing for

² For competing institutionalist approaches that do not rely on equilibrium concepts, see Hall and Taylor (1996).

votes of n voters. Every candidate has to choose a policy position that is illustrated by a point on the unit interval, $[0,1]$. Voters will choose the candidate who is located next to their own position. Since the Median Voter Theorem applies, every candidate will try to locate at the median ideal point and so finally end up at the same point. Shepsle (1979) coined the term structure-induced equilibrium for such a result of an institutional game.

2.1.2. Institution as equilibria

While this approach does explain differences in outcomes of institutions, it does not provide any explanatory power when it comes to the design of institutions and cross-country variance between institutions. Changes in institutions are also beyond the grasp of the game form approach. In contrast to game form approaches, an equilibrium-centered approach allows an endogenous analysis of institutions. In this approach, institutions are not fixed, but shaped by the actors involved.

As Shepsle (2006a, 1033) argues, “the primal strategic setting is characterized parametrically, but these parameters may change in response to shocks or perturbations”. In that sense, rules “become variables that are the product of a more encompassing game” (ibid.). The mentioned shocks are exogenous in nature. In general, approaches that understand institutions as a result of games rather than game forms, have the advantage of not being limited to analyzing the effects of institutions. These are also useful tools to analyze how institutions are chosen and changed.

There is another major implication, which becomes clear by the formulation that institution are chosen. In contrast to early institutionalists, e.g. Sait (1938), rational choice theorists do assume that institutions are chosen deliberately. This means that the actors involved are informed about the effects of a specific institutional choice or change, or at least they think they are. In a game between all involved actors, they try to maximize their utility by choosing strategies that lead to the optimal outcome given the actual or assumed strategies of other players.

In that sense, institutions do not simply arise over time and evolve in an evolutionary way. Rational choice theorists reject the idea that decision-makers do not know what they are doing, and assume instead that they are operating in a strategic manner in their power struggles.

2.1.3. Assumptions required for individual behavior

As discussed, a basic assumption in rational choice literature is that actors hold certain preferences, are aware of these preferences and try to implement reforms in accordance with their preferences. To model actors as rational, certain requirements have to be fulfilled. Tsebelis (1990, 24–27) distinguishes between weak and strong requirements. According to this classification, there are three very basic requirements. The first one is the impossibility of contradictory beliefs or preferences. Political actors cannot be in favor of independent central banks, and at the same time, favor monetary policymaking by politicians. At best, they can be indifferent between two possibilities.

The second requirement is the impossibility of intransitive preferences. Preferences are transitive if an actor who prefers A over B and B over C also prefers A over C. If this requirement is not fulfilled, the actors' preferences are not logically consistent. The third criterion is conformity to the axioms of probability. This means that actors form assumptions about a certain action based on their expected utility in accordance with probability theory. It does not mean, however, that they actually calculate values. The requirement is fulfilled if actors act approximately like they would have done if they had calculated expected values.

Apart from that, there are also three strong requirements for rationality (Tsebelis 1990, 27–30). The first one is conformity to the prescriptions of game theory. This basically refers to the assumption that actors are strategic and anticipate their opponent's behavior. The second requirement is that subjective probabilities that are used to calculate expected utility values should approximate objective frequencies. In reality, it is impossible for political actors to know the exact probabilities for a certain event. However, the probability they assign to an event should roughly be in accordance with observable frequencies of these events. The third requirement is similar. It is that actors' beliefs should approximate reality.

2.1.4. Limitations of rational choice

When discussing the formal requirements for applying rational choice approaches, the question arises whether the basic assumptions are fulfilled in reality. Some critics, e.g. Green and Shapiro (1994, 14–32) or Elster (2000), argue they are not and question the explanatory power of rational choice theory. Different schools of thought have challenged core assumptions of rational choice and have gained academic success. However, these

approaches are in many cases not per se incompatible with an adopted rational choice framework. In fact, they often help provide a broader picture of human behavior by drawing attention to blind spots of rational choice.

Some of the most relevant challenges to rational choice are discussed by Shepsle (2006b, 32–35). One of them is the bounded rationality approach. It points to the fact that rational behavior itself is associated with high costs and limited by cognitive limitations. Collecting all available information on a certain issue might prove to be highly costly so that the costs of being informed exceed the benefit of making an informed decision. This is especially true if stakes are low. In cases where the difference in outcomes between a well-informed decision and a less well-informed decision or even a simple guess can be neglected, collecting information might become irrational. In consequence, decision-makers rely on heuristics and cues. Consumer behavior often fulfills these criteria. In politics, however, there are probably fewer instances of bounded rationality. In designing institutions, in particular, stakes are usually quite high. Institutions are meta-rules and crucially limit the options political actors face. It might prove costly for them if decisions are not made on a rational basis.

Another prominent approach challenging rational choice is behavioral economics, i.e., the experimental testing of behavioral assumptions. Behavioral economists analyze deviations from expected rational behavior. Most prominently, this research program identified the effects of loss aversion and framing effects (Kahneman 2011, 283–286; 363–374). While bounded rationality is a behavioral theory, behavioral economics is more appropriately described as a research program. Many of the biases described by behavioral economists do play a role in politics. For example, loss aversion might make political actors less keen on the implementation of reforms. The same goes for the status quo bias observed by behavioral economists.

It is important to note that the valuable findings by behavioral economics are not incompatible with rational choice approaches. They take rational choice assumptions as a starting point and observe deviations. As a consequence, behavioral economics should not be seen as a tool to falsify rational choice, but rather as an approach that helps in the formulation of more realistic behavioral assumptions.

Another relevant theoretical contribution is transaction-cost economics. It is based on the assumption that “[e]xchange [...] is neither automatic nor cost-free” (Shepsle 2006b, 34). The change in institutions is associated with certain costs. Before an agreement with all relevant parties is reached, actors have to collect information, bargain and build

coalitions. All these activities produce costs, be it politically, financially, or simply in the terms of opportunity costs. These costs are referred to as transaction costs.

Transaction costs involve actions to collect knowledge about the preferences of relevant actors within the own parties, other parties, in relevant bureaucracies or interest groups. They further involve the formation of plausible and well-founded expectation about the effects of the implementation of a certain reform. Bargaining itself can be considered a cost, not only because it requires human resources that cannot be used elsewhere, but also because it usually involves giving up certain positions in exchange to receive concessions on other more important points. A prominent example for bargaining in politics is coalition building, which does not necessarily refer to formal coalitions, e.g., government coalitions, but also to informal alliances with other parties or even within a party. Gaps in information might be another case of transaction costs that prevent institutional change, as Heritier (2007, 14–15) points out. Another example by the same author is constituted by institutions that are difficult to monitor.

Acknowledging the existence of transaction costs implies that actors with a weak preference for a change in the status quo might refrain from taking steps in that direction if their transaction costs are too high, even if the benefits of the reform itself are expected to be slightly higher than its costs.

An example of transaction costs in the case of CBI is membership in inter- or supranational organizations or institutions, e.g., the euro zone. Membership in the euro zone requires countries to have an independent central bank. If political actors in a euro member state want to reform their central bank in a way that would make it highly dependent on politicians, they would have to exit the common currency. Given the dramatically high transaction costs of such a step, pursuing such a reform proposal would be absurd.

2.1.5. Types of institutions

Shepsle (2006b, 27) distinguishes between structured and unstructured institutions. The former term refers to organizations like parliaments, governments or central banks, while the latter refers to informal practices like unwritten parliamentary rules. Unstructured institutions emerged without being explicitly written down, in many cases even without

deliberate design. RCI focuses in a stronger manner on structured, i.e., formal institutions, which is due to the rigorous nature of its theoretical framework.³

Institutions can also be further divided into efficient and redistributive institutions (Tsebelis 1990, 104–115). The question whether a reform is efficient or redistributive has important implications. Efficient reforms do not produce losers, they increase the efficiency of a reform and no actors are worse off. Hence, no of the political actors involved has an incentive to oppose the reform apart from tactical or strategic reasons. In contrast, redistributive institutions create winners and losers. These reforms are, by definition, a zero-sum game. Some of the actors involved win while others lose. It follows that redistributive institutions should face strong resistance from actors that anticipate utility losses. As a consequence, it can be expected that redistributive institutional changes are harder to implement than efficient ones.

Reforms that grant independence to central banks can be considered to be redistributive reforms. However, unlike most cases of distributional reforms, they seem to result in losses for all the players involved, given the fact that politicians lose their power to influence monetary policy for their own ends. It can be concluded that actors' expected utility from CBI trumps their lost influence on monetary policy. The actors' exact reasoning remains to be discussed.

2.1.6. Sources of institutional change

As briefly mentioned earlier, institutional change is expected to occur when an equilibrium is disturbed. Shepsle (2006b, 26) provides an informal but striking definition of equilibrium disturbance: "If a decisive player wants to play according to different rules [...] then the rules are not in equilibrium and the 'institution' is fragile". As long as all the players involved have no incentive to change rules, the institution is stable, and the equilibrium that has been attained is not in danger. It follows that an equilibrium is disturbed if a new actor enters the game. If different actors are involved, different preferences are involved and actors will implement reforms according to their preferences. Typically, changed actor constellations are a result of elections. In non-democratic political systems, they can follow coup d'états or revolutions. In both cases, relevant decision-makers have changed, and a reshaping of important institutions can be expected.

3 However, it is also applicable to unstructured institutions, as Shepsle (2006b, 32) discusses.

Another major source of disturbance is external shocks (Sieberer, Müller, and Heller 2011, 953–954). These include domestic economic or political crisis as well as long-term trends on a global scale. In the last few decades, the impact of globalization on domestic reforms has been an important aspect. The participation in global trade requires countries to meet certain pre-conditions that have to be implemented via domestic reforms. The decision that participation in global trade is desirable may be a non-partisan one, i.e., not questioned by either party, because of a country's reliance on foreign investment. In such a case, changed actor constellations are not sufficient to explain institutional change.

But this does not imply that actors have to have completely identical preferences. In the case of CBI, there might be partisan disagreement about the degree of CBI, e.g., about the terms of the central bank governor or the exact wording of the central bank's mandate. At the same time, the actors who are involved may agree on CBI in general, as opposed to the central bank being under direct political influence.

A crucial distinction between changed actor constellations and external shocks is that while in the former case, actors stick to their preferences, the latter implies a change in preferences over time. For instance, political parties opposed to independent central bank might change their stance as response to a major financial crisis. This would be a classic example of an external shock leading to institutional change.

2.2. Central banks as political institutions

2.2.1. The role of central banks within the economic system

Central banks are part of a government's executive branch. More precisely, they are the government agencies that conduct monetary policy. As such, central banks are an important part of the financial system and the overall economy. Nowadays, central banks are primarily responsible for price stability. In many cases, their mandate also includes other variables central banks influence, such as financial stability, economic growth or unemployment. In their conduct of monetary policy, they rely on different instruments, most prominently interest rates. Central banks usually set targets for short-term interest rates and intervene in the money market to move rates toward their target. They have the power to create and, accordingly, destroy money to achieve their monetary policy goals. The process by which central banks buy or sell securities to influence the amount of money in the economy is referred to as open market operations.

Since economists usually assume a relationship between money supply and the price level, the ability of central banks to influence the money supply is a powerful tool to control inflation. Central banks cannot, however, control the money supply directly. They are limited to influence the so-called monetary base, which consists of commercial banks' reserves in their accounts at the central bank and currency in circulation (Mishkin 2010, 353). Economists theorize that changes in the monetary base influence the money supply. This relationship is captured by the concept of the monetary multiplier, which assumes that an increase in reserves leads to credit expansion. This is, in turn, should increase economic activity and stimulate growth. However, the exact relationship between the monetary base and the money supply depends on other variables as well, which is why the specific effects of a certain monetary policy decision are not always clear beforehand.

Monetary policy decisions directly affect prices of assets like stocks and bonds, including government securities. Indirectly, they influence activity in the real economy. Since central banks have the ability to create money out of thin air, it might be tempting for governments to use their powers to finance government expenditure. Theoretically, a government can always use its central bank to pay for its deficits. This practice is referred to as monetary financing. Historical experience shows that monetary financing does not come for free, but is associated with negative side effects such as high inflation rates. The newly created money raises aggregate demand in the economy and, subsequently, consumer prices. In extreme cases, it might even lead to hyperinflation, i.e., the total loss

of a currency's value. To preclude such a scenario, monetary financing is prohibited by law in many countries. Central banks are then banned from buying bonds directly from the government. However, in most cases they are allowed to buy government bonds on the secondary market. This means that central banks can buy government bonds as long as somebody else bought them in the first place and is willing to sell them. If a government fails to place its bonds on the market, the central bank is not allowed to buy them.

Central banks aim to control the price level by using a nominal anchor, which, in theory, should lead to price stability. Nominal exchange rates, inflation rates, or the money supply can serve as the nominal anchor. While price stability is considered the primary goal of central banks, it is not the sole goal monetary policymakers aim to achieve. Other desired objectives include high employment, economic growth, financial stability, stability of interest rates, and stability in the foreign exchange markets (Mishkin 2010, 316–319).

However, the goal of price stability is the primary goal only in the long run. In the short run, central banks may allow inflation to overshoot to counteract economic crises. Therefore, monetary policy focusing on price stability and price level fluctuations are, in fact, not incompatible. While many central banks perceive them as acting solely based on rules, there is still plenty of room for discretion in monetary policy.

In counteracting economic crisis with monetary policy, central banks face time lags between the implementation of certain steps and their effectiveness. According to Mishkin (2010, 405), it may take over a year for monetary policy to influence output in industrialized countries and over two years to have a significant influence on the price level. In developing countries with high variable inflation rates, the lags may be shorter.

2.2.2. Historical development of central banks

The first central banks were formed in the seventeenth century. The oldest central bank is the Swedish Riksbank, which was established in 1668, followed by the Bank of England, whose foundation dates back to 1694. While those institutions were primarily founded to finance government expenditure, they were privately owned. It took another decade until other European countries adopted the concept of central banks. The Bank of France was established in 1800; the Netherlands, Austria and Norway followed within twenty years. The United States and Switzerland had no central banks until the twentieth century, with the Federal Reserve System being established in 1913 and the Swiss National Bank in 1905. The system of central banking was adopted even later in former British colonies like

Australia, which formed a central bank in 1924, and Canada, which did not have a central bank until 1935. In South America, most countries established central banks during the 1920s, while many African countries that became independent only after World War II (WWII) formed central banks in the 1950s and the 1960s (Elgie and Thompson 1998, 15; Marcussen 2005, 908).

Those numbers show that central banking was not a rapidly spreading innovation. In fact, it took centuries until central banks were considered an integral part of every financial system. The role central banks played within those systems, however, evolved crucially. In the early stages of central banking, they played a minor role, and their tasks were limited. Typically, they received the exclusive right to issue bank notes by the government in exchange for granting privileges with regard to financing conditions (Elgie and Thompson 1998, 16). Their tasks were expanded in a gradual manner, but it was not until the early twentieth century that central banks were established as institutions that did not seek profits but rather aimed to stabilize the economy.

With regard to the relationship of the central banks with the government, different periods can be distinguished. Until the early twentieth century, central banks were relatively independent from government. They were in private ownership and the then-dominant paradigm of laissez-faire economics favored no government involvement in the economy. Most countries at that time were on a gold standard, i.e., their currencies' value was determined by their gold reserves. This left little room for monetary policy and central bank's primary task was to ensure the gold convertibility of their respective currencies (Capie, Goodhart and Schnadt 1994, 51).

That changed with World War I (WWI). Central banks were needed to finance war expenses, and governments had little use for anything limiting their spending abilities. Hence, most countries suspended the gold standard and ensured that their war expenses were covered by the central bank. Goodhart (1995, 212) argues that the suspension of the gold standard during war times was expected, but not the fact that the pre-war status quo was not re-established once the war had ended. While some countries did return to the gold standard, the economic crash of the late 1920s and early 1930s proved to be cumbersome. With the emergence of what turned out to be the Great Depression, the gold standard was suspended again by most countries to fight the economic crisis by monetary easing.

This was accompanied by a shift in economic thinking toward more interventionist policies, caused mostly by the writings of John Maynard Keynes. While classical economists assumed that the economy was self-stabilizing, Keynes challenged this notion.

He argued that governments had to actively manage aggregate demand to make sure supply and demand within an economy would meet (Goodhart 1995, 212–213). He also criticized the gold standard as counterproductive, famously dubbing it a “barbaric relic” (Keynes 1923, 172). Keynes argued that the exchange rate between gold and a given currency could be set at an inappropriate level, which would result in inflexible prices, causing unemployment.

At the latest, after WWII, the Keynesian approach to macroeconomics—active management of aggregate demand—was the dominant paradigm among academics and policymakers. With the emergence of Keynesian thinking, the importance of monetary policy declined in favor of fiscal policy. While demand management could be undertaken by both monetary and fiscal policy, most policymakers cited the experience of the 1930s that fiscal policy was more powerful and more reliable (Goodhart 1995, 213). The purpose of monetary policy in the then-dominant view was primarily to keep interest rates down, so that investment was encouraged. In accordance with this paradigm, formerly privately-owned central banks were nationalized, e.g., the Bank of England, the Banque de France and the Nederlandsche Bank (Capie, Goodhart and Schnadt 1994, 54).

Politically, roughly two-and-a-half decades from WWII onward, the Bretton Woods system was in place. In this system, the United States maintained a fixed exchange rate between the U.S. dollar and the price of gold. The other participating countries pegged their currencies to the dollar, within a range of +/- 1 percent (Houben 2000, 131). But the Bretton Woods system was not limited to fixed exchange rates. Rather, it was a whole financial order including capital controls and cooperation in monetary matters (Beyeler 2007, 16). It delivered economic stability, high growth rates and price stability for two decades. During the 1960s, economic growth slowed down, which led governments to adopt more expansionary policies. Additionally, the United States—the anchor country in the Bretton Woods system—was engaged in an expensive war in Vietnam (Beyeler 2007, 17). While the system led to non-inflationary policies in the countries that were pegging the currencies to the dollar, the exact opposite was the case for the anchor country. The high economic growth in the former created a strong demand for dollars, which in turn led to chronic balance of payment deficits in the United States. These deficits made it harder for the United States to maintain the gold convertibility (Houben 2000, 132).

In August 1971, President Richard Nixon announced that gold convertibility of the dollar was suspended. Two years later, in March 1973, the Bretton Woods system collapsed, with the European countries and Japan de-pegging their currencies from the

dollar. Most countries switched to floating currencies, i.e., the value of their currencies was determined solely on the market and exchange rates were flexible. Some European countries adopted another exchange-rate system from 1972 onward, the so-called snake.

With the crisis of the Bretton Woods system, academic views on monetary policy changed as well. As mentioned, in the Bretton Woods era, monetary policy was not the primary instrument in economic policymaking, but fiscal policy. Central banks, therefore, did not play a major role in managing aggregate demand, since interest rates were considered as not being effective in managing aggregate demand. Negative effects of economic overheating were fought with credit controls and income policy rather than interest rate hikes (Bean 2007, 167–168).

The central concept in economic policymaking was the so-called Phillips curve. This term refers to a statistical relationship between two economic variables, namely unemployment and inflation, first discovered by economist William Phillips. He had found by analyzing historical data from the United Kingdom that periods of low unemployment coincided with high inflation and periods with high unemployment were associated with low inflation (Phillips 1958). Phillips reasoned that in periods with low unemployment, the demand for workers exceeded the labor supply, which increased worker's bargaining power and, accordingly, their wages. As a result, costs and prices would increase. As a consequence, central banks can fight inflation by keeping demand low at the cost of higher unemployment. In other words, the Phillips curve postulated a trade-off between inflation and employment. If Phillips was right, economic policymaking would be mainly about deciding which trade-off was optimal. This was indeed the prevailing view among economists and central bankers during the 1950s and 1960s (Freedman 2003, 97).

But the Phillips curve did not remain unchallenged. Milton Friedman (1968) pointed out that the relationship may exist in the short run, but will disappear in the long run. Based on rational expectation theory, Friedman argued that workers would anticipate the effects of monetary easing. As a consequence, they would demand higher wages to compensate for the anticipated losses caused by inflation. This, in turn, would render monetary easing ineffective as it does not result in lower real wages which would increase demand for workers.

After the oil price shocks in the 1970s, industrial countries experienced exactly this phenomenon: despite high inflation, unemployment also increased significantly. Monetary policymakers faced the dilemma that there seemed to be no feasible solution for the problem of inflation. According to Okun (1978, 348), the U.S. Federal Reserve would

create a 10 percent contraction of output and employment for each permanent percentage point reduction of inflation that is aimed to achieve. Political observers and economists alike considered such a proposal as politically impossible. The turning point in the United States was the arrival of Paul Volcker as Federal Reserve chairman in 1979 (Goodfriend 2007, 47). Volcker followed the monetarist prescription and brought down inflation down to four percent by the means of monetary tightening. He did precipitate recessions in 1980 and 1981–82 to achieve that goal, but between 1981 and 1982, inflation rates in the U.S. fell sharply.

The very concept of inflation as a real, rather than a monetary, phenomenon was now seen as misguided. Instead, economists began to view inflation as rooted in monetary matters again. This had massive practical consequences. On the one hand, monetary policy became much more important. On the other hand, the institutions conducting monetary policy—central banks—were now assigned a much bigger role in stabilizing the economy. Because of the successful prediction of the monetarist economists, policymakers turned to their policy prescriptions.

Monetarists assumed a stable relationship between money and inflation, implicitly considering the velocity of money as constant. The conclusion for monetary policy was that the money supply mattered, and policymakers should target monetary aggregates. While inflation was brought under control, monetary targeting did not live up to its expectations. For instance, in the early 1980s, the United Kingdom experienced broad money (M3) overshooting its target while at the same time narrow money grew slower and the Pound Sterling appreciated (Bean 2007, 169). This indicates that while the central bank tried to tighten money, the relationship between narrow money and broad money turned out to be unstable, which led to failure.

As a consequence, central banks mostly abolished monetary targeting. In many cases, they switched to inflation targeting instead. In such a setting, either the central bank or the government, in some cases both in cooperation, publicly announce a desired level of inflation. The central bank then has to choose monetary policy measures that lead to a convergence between the desired level of inflation and the actual price level.

The first bank to announce an official inflation target was the Reserve Bank of New Zealand in 1990. The event coincided with a major institutional reform of the central bank. After New Zealand proved to be successful in achieving price stability, inflation targeting, and also delegating monetary policy to independent central banks, became more widespread. During the 1990s, the global number of independent central banks increased

dramatically, after central bank legislation had been largely unchanged in the decades before.

The 1990s and the first years of the new century were marked by relatively smooth macroeconomic conditions, which is why this period is sometimes referred to as The Great Moderation. The newly independent central banks were considered a success since no major financial crisis occurred in the Western world. In Europe, the common currency euro was introduced. Monetary policy was not a major issue during the first decade of its existence. With the global financial crisis of 2007–09, central bank practices changed dramatically. Central banks had to intervene massively in the banking systems and, later on, also in the bond and currency markets to save their economies from collapsing. For the first time in history, the Federal Reserve and the Bank of England announced large-scale bond buying programs, respectively in 2008 and 2009. The more conservative European Central Bank (ECB) followed years later in 2015. The Bank of Japan announced an aggressive monetary stimulus in 2013, which included the aim to double the money supply to escape deflation.

Despite those major changes in policy, the financial crisis did not trigger a new wave of central bank reforms. The legislation regulating central banks' positions remained largely unchanged in most countries. The fact that politicians did not see any need for reform might be interpreted as an indication that the measures adopted during the crises were perceived as successful.

2.2.3. Structural incentives for governments to create excess inflation

As already discussed, industrialized countries experienced two periods of relatively moderate inflation after WWII. It was not until the 1970s that price stability became a major problem. Assuming a relationship between money supply and the price level, the question arises why central banks allowed the former to grow excessively and create monetary instability. Since the 1970s were a period in which independent central banks were relatively uncommon, it is probably fair to say that governments, rather than central banks, were responsible. In fact, there are several reasons for governments to engage in excessive monetary easing. Four aspects provided by Cukierman (1992, 17) will be discussed here: the unemployment motive, the revenue motive, the balance of payments motives, and the financial stability motive.

First, wages as prices of labor are usually higher than the market-clearing price, i.e., the price of labor is higher than the price at which employers would demand every available person in the labor force. The consequence is that unemployment would be lower if wages were lower. Since employers and wage bargainers are interested in real rather than in nominal wages, higher prices reduce wages. Lower real wages create higher demand for labor and result in a lower unemployment rate. However, if wage bargainers anticipate the increase in inflation, they will demand higher nominal wages as compensation for the higher price level to avoid real losses. In such a scenario, the economy ends up with higher inflation rates and the same level of employment because real wages did not change and, hence, demand for labor did not increase (Cukierman 1992, 27–45).

But even if a central bank does not care about unemployment, there might be other reasons for monetary expansion. One reason is government revenue. While in some countries there are strict rules that restrict central bank lending to the government, other countries do not have restrictions. In such cases, there might be strong pressure on central banks to finance deficits via buying government bonds with newly created money. The gains from government financing are referred to as seigniorage. Money that did not exist before is used to finance government expenditures (Cukierman 1992, 47–82).

Another reason can be found in trade balances. If a country has a consistent trade or current account deficit, policymakers might have an incentive to reduce it by devaluing the currency. However, this approach also has some problems. The main issue is that the central bank controls the nominal exchange rate, but it does not control the real exchange rate, which is the crucial variable for the effectiveness of such a measure. A nominal devaluation stimulates employment as well as output via lower export prices, which leads to a decrease in the current account deficit. But higher output also increases incomes, which boosts domestic consumption and, as a consequence, increases the current account deficit. The crucial question is, therefore, which effect dominates. Besides that, a currency devaluation reduces the public's consumption by decreasing the real value of government bonds that are nominally denominated (Cukierman 1992, 83–95).

Even if a central bank does not care about unemployment, government revenue or the balance of payments, financial stability might provide an incentive for excessive monetary easing. It can be assumed that central banks are generally concerned about financial stability, since proving stable financial conditions is one of their main tasks. Therefore, central banks may want to avoid fluctuations in interest rates. If financial institutions are vulnerable to surprise increases in interest rates in the market, the central

bank might inject money in cases of rising rates. This has a moderating effect on the increase in interest rates and contributes to the stability of the financial system. However, it might come into conflict with price stability since it involves monetary expansion. In that sense, the financial stability motive can contribute to an inflationary bias in monetary policy (Cukierman 1992, 115–135).

To summarize, there are at least four major problems that create incentives for governments to engage in excessive monetary easing, which, in turn, can lead to financial and economic instability. The crucial question for policymakers is how these issues can be addressed. Given the structural nature of these problems, an institutional response seems necessary. The following section will discuss possible institutional steps to overcome the inflationary bias.

2.2.4. Institutional responses to the inflationary bias

From the 1980s onward, stabilization policies managed to bring down inflation to moderate levels in large parts of the Western world. At the same time, many institutional reforms of central banks were implemented. However, it is important to note that delegation of monetary policy to an independent central bank is neither necessary nor sufficient to achieve price stability. Dependent central banks could implement stabilization policies; in fact, they did, in several cases.

But once price stability is achieved, one might ensure that policy mistakes from the past are not repeated. This is why achieving price stability is often not only a policy question, but also something that requires an institutional response. Such institutional changes are not limited to delegation to an independent central bank. Alternatives include currency pegs, currency boards, inflation targets and central bank rules (Hayo and Hefeker 2002, 661–662).

Currency pegs were—and still are—often used by developing countries to signal credibility. In many cases, the U.S. dollar served as the anchor currency. The term “dollarization” was coined for this practice. In Europe, the German mark was often used as the anchor currency. The basic idea behind a currency peg is to “borrow” credibility. If a currency’s value is pegged to the dollar, the pegging country’s central bank has to follow every monetary policy step the U.S. Federal Reserve takes. Accordingly, the country’s government has to take the peg into consideration in its decisions on fiscal policy. The room for maneuverability is very limited, but this is exactly what the country wants to

achieve: the reasoning behind it is that the currency peg signals investors that the country will not follow irresponsible monetary or fiscal policies. The country is “tying the hands” of domestic policymakers (Bernhard, Broz and Clark 2002, 706; Giavazzi and Pagano 1988).

There is one problem, though. The currency peg has to be maintained in a credible way. If a central bank is not able to do so, a currency will be vulnerable to speculative attacks, which may force policymakers into devaluation by giving up the peg. Before the foundation of the European Monetary Union (EMU), this was a continuing problem for European countries. A famous example is the speculative attack on the British pound in 1992 by George Soros and others, which resulted in the United Kingdom’s departure from the EMU. Therefore, the establishment of a currency peg is not sufficient to demonstrate credibility. A central bank must be willing, and capable, to defend the peg if its credibility is questioned by speculators. Hayo and Hefeker (2002, 661) even conclude that pegs are only credible if the central bank is substituted by a currency board, or a full monetary union is joined.⁴

Clear rules that constrain policymakers are another option to ensure credibility without delegation to an independent central bank is. Examples are fixed monetary growth rates or inflation targets. Fixed monetary growth rates were proposed by Milton Friedman and other monetarists, who argued that these would limit discretion for policymakers and result in economic stability. Friedman suggested that a growth rate of three percent would ensure that both high inflation and deflation would not occur. He did not, however, propose the concept as an alternative to CBI, but discussed the idea without making references to the institutional setting of a central bank. In practice, monetarist ideas were implemented by very independent central banks, most notably the German Bundesbank and the U.S. Federal Reserve, as well as by central banks with a low degree of institutional independence, such as the Bank of England. In practice, monetary targeting turned out less successful than expected, and was largely abolished as a consequence.

Inflation targeting, on the other hand, became popular among central banks in the 1990s, which coincided with the large wave of global central bank reforms. The first central bank to introduce an inflation target was New Zealand in March 1990. After more than two decades of double-digit inflation rates, New Zealand committed itself to a target of 0–2 percent. (Beyeler 2007, 78–80). Canada and Israel followed in 1991, while the first

4 A currency board is an institution which only has the task to maintain a currency peg. It does not have the power to implement other monetary policy choices.

European country to adopt an inflation target was the United Kingdom in 1992 (Bernanke and Mishkin 1997, 99). Later on, emerging market countries like Brazil, Thailand or South Africa also adopted inflation targets (Crockett 2003, 115). In general, inflation targeting refers to a policy where monetary policymakers formulate an inflation goal and try to achieve that goal with discretionary policy measures. In the 2000s, a very large numbers of central banks around the world used explicit or implicit inflation targets. Also, the International Monetary Fund (IMF) actively promoted the concept (Marcussen 2005, 917).

The question remains as to how much room inflation targeting leaves for discretion. Bernanke and Mishkin (1997, 106) have coined the term “constrained discretion” for monetary frameworks like inflation targeting, as opposed to strict monetary rules like the gold standard or Friedman’s rule of automatic monetary growth. Hayo and Hefeker (2002, 662) argue that central banks still have plenty of room for discretion under an inflation targeting regime, and point to the fact that the governor of the abovementioned central bank of New Zealand was not removed after missing the inflation target. It is probably fair to say that inflation targeting leaves more room for maneuverability for central bankers than fixed rules while on the other hand providing advantages of purely rule-based monetary policymaking.

As was the case with fixed monetary growth rules, in practice inflation targeting was not used as an alternative to CBI. The concept gained importance when most central banks were already independent. Furthermore, it depends strongly on the credibility of an institution whether inflation targeting is successful or not. A non-independent central bank might announce an inflation target, but if it is not considered to be credible, it will not have the desired effects. Such effects usually include changing inflation expectations. However, as Parkin (2012, 20) demonstrated, in practice, inflation targeting proved to be successful in bringing down inflation rates, regardless of the institutional status of a central bank.

To summarize the discussion, institutional responses to the inflationary bias are in no way limited to the delegation of monetary policy to independent central banks. Policymakers can and, in some cases, did opt for other possibilities to achieve the effects usually prescribed to independent central banks: namely, credibility and price stability. However, delegation of monetary policy became, by far, the most-adopted solution to curb excessive monetary easing. But since there is no necessity to implement CBI reforms to reach price stability, the question arises how the success story of monetary policy delegation can be explained. The next section addresses this question.

2.3. The concept of central bank independence

As the previous section demonstrated, it is neither necessary nor inevitable to delegate monetary policy to an independent central bank to overcome the time-inconsistency problem. Curbing high inflation rates does not require a formal change in legislation either. However, during the 1990s, a wave of reforms committed to CBI could be observed. In this chapter, the foundation of the concept will be discussed. Furthermore, the empirical effects of CBI and determinants of CBI are discussed.

2.3.1. Dimensions of central bank independence

Central bank independence refers to the degree of autonomy a central bank has within the political system. Obviously, no central bank can ever be fully independent from other parts of the executive. However, the degree of autonomy varies strongly across countries. While the term CBI tends to indicate a binary choice between dependent and independent central banks, the reality is more nuanced. Also, independence has different dimensions.

The most important distinction is the one between goal independence and instrument independence (Crowe 2008, 748). A goal-independent central bank itself decides which objectives it pursues and does not rely on politicians' orders in that matter. For instance, a central bank might have the right to define price stability and, hence, have room for maneuverability even if the focus on price stability is stated in its mandate. An example is the ECB that is obliged by its mandate to achieve price stability, but the definition of price stability is left to the bank. Accordingly, the ECB's inflation goal of close to but underneath two per cent is not stated in any European treaties but is a result of the central bank's discretionary choices. As such, it is subject to change, and the ECB indeed changed its inflation target during the 2000s⁵ (De Haan, Eijffinger and Waller 2005, 36–38).

A central bank that is not goal-independent, on the other hand, does not have the option to define its objectives. An example is the Bank of England and its inflation target of two percent. This value is not chosen by the bank, but a result of political considerations in the Treasury (Elgie and Thompson 1998, 77). The difference is crucial, since this institutional setting does leave the Bank of England much less room to maneuver and more decision-making power at the political level. A change in government might result in a new inflation target in the United Kingdom while changes in the European Commission or at

⁵ The ECB prefers to say that the inflation target was clarified.

the national level of an euro zone member state have no influence whatsoever on the ECB's definition of price stability. The Bank of England is, however, instrument-independent. That means that it can choose the means by which it achieves its targets, and the executive cannot interfere (Crowe 2008, 748).

Occasionally, other dimensions of independence are mentioned. Bini Smaghi (2008) distinguished between four aspects: functional, institutional, personal and financial independence. Functional independence corresponds to instrument independence, that is, the question whether a central bank can choose the instruments to achieve defined goals or not. Institutional independence, in this definition, refers to possibilities that governments do or do not have to directly influence monetary policy decision-making. Personal independence captures the process of nomination and dismissal of policymakers in the central bank. Financial independence refers to constraints and possibilities of the central bank to set its budget without reliance on the Treasury.

2.3.2. The theoretical underpinnings of central bank independence

The concept of CBI certainly was not developed in an academic ivory tower. As the previous section demonstrated, the relationship between central banks and the rest of the executive has changed over time. In many cases, those changes were driven rather by practical considerations than by new academic insights. There were no new academic findings in favor of stronger government control over central banks at the beginning of WWI, governments simply perceived it as a necessity to finance their war expenses.

In the 1970s, however, economists developed a theoretical basis for the assumption that independent central banks deliver superior economic performances by formalizing the so-called time-inconsistency problem. The foundation for this branch of literature was the seminal work by Kydland and Prescott (1977). They introduced a formal model, which demonstrated that discretionary policy does not lead to the maximization of an assumed social objective function. Based on the Lucas critique, i.e., the assumption that rational agents in an economy anticipate effects of changes in economic policy, they argued economic planning leads inherently to a divergence between the stated objectives and the actual results. The best plan made for the future by a player in a dynamic game is no longer perceived as optimal when that point in the future arrives. Kydland and Prescott described that phenomenon as "dynamic inconsistency." The central conclusion of these theoretical insights is that even if a central bank is well-meaning and aims to sincerely optimize social

welfare, it might fail to do so and end up with inflation rates higher than optimal. As a solution, Kydland and Prescott recommended that policymakers should follow rules rather than exercise discretion.

Kydland and Prescott did not, however, apply their model to the specific case of monetary policy. Nor did they propose the creation of independent organizations to solve the time-inconsistency problem. The application of the Kydland and Prescott model to monetary policy was proposed by Barro and Gordon (1983), who aimed to develop a positive theory of monetary policymaking in a natural rate model. They argue that a discretionary policymaker can create unexpected inflation and, thereby, reduce unemployment and increase government revenue. This cannot happen, however, if rational economic agents understand the policymakers' goals. This argument follows Kydland and Prescott very closely. Barro and Gordon demonstrated in a formal model that the abovementioned combination leads to excessive monetary growth and, furthermore, that this kind of stimulation of the economy does not reduce unemployment in the long run. Hence, it should be avoided. In their model, switching from discretion to fixed rules improves the outcome. As a consequence, Barro and Gordon suggest that a rule-based approach to monetary policy is superior to a discretion-based approach.

In other words, they recommended the same measures as Kydland and Prescott did before them, but applied them to the specific case of monetary policy. However, while the direction of their argument was quite clear, they did not propose specific steps to improve the institutional setting in which monetary policy operates. They did assign great importance to the design of such institutions, but seemed to favor some kind of commodity standard or legal restrictions in case a commodity standard was not in place (Barro and Gordon 1983, 609). A specific recommendation, however, is missing. Also, they make no reference to policy delegation.

The problem was further addressed in another very influential paper by Rogoff (1985). Rogoff explicitly discussed institutional responses to the time-inconsistency problem and proposed appointing central bankers who do not share the same preferences on inflation and unemployment as the whole society but take a more "conservative" stance, i.e., prioritizing fighting inflation over fighting unemployment. At the same time, Rogoff took a less restrictive stance on the rules vs. discretion debate than Barro and Gordon. Rogoff argued that while it might be desirable for a society that central banks put stronger weights on price stability than on unemployment, the weight should not be infinite. If this were the case, central banks could not adequately respond to supply shocks. Rogoff

acknowledged that central banks cannot raise employment in a systematic way, but argued that monetary policy is capable of stabilizing inflation as well as employment “around their mean market-determined levels” (Rogoff 1985, 1170).

While Rogoff did not explicitly call for the creation of independent central banks, delegation of monetary policy seems to be the logical conclusion of his main argument. Compared to the earlier literature on time-inconsistency, Rogoff’s paper represented a move away from advocating a purely rules-based approach, which he considered too inflexible and associated with higher costs in certain situations. The paper was published at a time when some central banks had already implemented monetary targets, and their mixed records became apparent. Still, it predated the big wave of central bank reforms. Following Rogoff, policymakers could argue in favor of the delegation of monetary policy, as opposed to the implementation of fixed-rule strategies.

2.3.3. Effects of central bank independence

After examining the theoretical effects of CBI in the previous section, an even more important question has to be addressed. Do those effects hold up empirically, i.e., does the concept of CBI live up to its expectations? After the literature on time-inconsistency was well established and the case for CBI was considered to be compelling, researchers turned to the empirical analysis of delegation in monetary policy. The most obvious—and probably also the most relevant question—is the assumed negative relationship between CBI and inflation since the main promise of delegating monetary policymaking was to bring down inflation levels and to maintain price stability.

Many empirical studies, especially the early ones, confirmed this relationship. For instance, Alesina and Summers (1993) found a negative relationship between the price level and CBI based on an analysis of sixteen industrialized countries. In real terms, however, delegation of monetary policy does not seem to have any effect whatsoever, i.e., economic growth turned out to be largely unaffected. Being one of the first studies on the relationship between CBI and inflation, the authors pointed out its limits and argued that other institutional factors might also be influential. Moreover, they speculated that CBI might be an endogenous variable.

Cukierman, Webb, and Neyapti (1992) also found that CBI was associated with price stability in industrialized countries. However, the authors pointed out that several devices for ensuring price stability exist, and CBI should not be viewed in isolation. Their

study also showed no link between CBI and inflation in developing countries, which is an interesting finding that challenges the assumption that CBI does generally lead to superior economic performances. However, Cukierman does not conclude that CBI does not work in developing countries. Rather, the discrepancy between formal CBI and actual CBI is higher in developing countries. Accordingly, the result might provide only an indication of a measurement error in the sense that formally independent central banks are not as free from government interference than their legal status indicates.

This discrepancy was already addressed in Cukierman (1992, 383–386), where turnover rates of central bank governors were used as a proxy to measure actual independence. Cukierman found that higher CBI, as measured by the turnover rate, does, in fact, predict lower inflation. However, using the turnover rate as a proxy comes with some limitations. A central bank governor who always gives in to the government in case of conflict might stay in office for a long time. His turnover rate would imply high independence, while in fact the opposite is the case.

Studies focused specifically on non-industrialized countries provided mixed results. Arnove et al. (2009) analyzed 24 emerging market economies between 1960 and 2004. They found that delegation of monetary policy helped maintain low inflation rates, but not necessarily achieve price stability in the first place. Their conclusion is that CBI has paid off for the countries implementing central bank reforms, but other determinants of price stability play an important role, which should be acknowledged.

Similar results are provided by Jácome and Vázquez (2005) in their study of 24 countries in Latin America and the Caribbean during the 1990s. The authors did find a negative relationship between formal CBI and low inflation. At the same time, they point out that the relationship does not seem to be causal in a sense that delegation of monetary policy decisions brought down inflation rates. Rather, their data indicates that central bank reforms were largely endogenous and broad structural reforms were the main aspect behind curbing inflation. These results were tested by using three different indexes of CBI, suggesting that problems of measurement are unlikely.

Somewhat mixed evidence also comes from former socialist countries. Cukierman, Miller, and Neyapti (2002) analyzed 26 transformation countries, mostly in Central and Eastern Europe and Central Asia. The study found no relationship between CBI and inflation in the early stages of liberalization. But for a “sufficiently high and sustained level of liberalization,” the formal degree of CBI and price levels are negatively related.

Taken together, those findings indicate that CBI might have helped maintain price stability but, as is most likely, it did not cause it. There is some indication that this was also the case in developed countries. Daunfeld and de Luna (2003) analyzed 23 Organization for Economic Co-operation and Development (OECD) countries and found no relationship between CBI and inflation rates. Rather, they argue, price stability already had been achieved in most countries before policymakers decided to delegate monetary policy to independent central banks. Eijffinger and van Keulen (1995) also found no relationship between CBI and inflation for 11 European countries in the 1990s and 1980s.

Parkin (2012) analyzed 27 industrial countries and found that CBI does lower the variability of inflation and also the average inflation, but the same result could be reached by inflation targeting, regardless of the institutional status of a central bank. Moreover, Parkin's findings indicate that CBI has no effect on the variability of economic growth, while countries that implemented inflation-targeting achieved lower variability of economic growth. Klomp and de Haan (2009) ran a meta-regression analysis with 59 studies on inflation and CBI and found a relationship between the two variables, but also a significant publication bias toward the relationship between inflation and CBI.

These results raise some doubts about the validity of the stated negative relationship between independence of central banks and price stability. However, it does not follow that the relationship does not exist at all or that delegation of monetary policy has effects very different from the ones that are suggested by theoretical models. Rather, it seems plausible that other variables influence the relationship and have to be taken into account to obtain the full picture.

One of these variables might be the quality of political institutions. Hielscher and Markwardt (2012) show that delegation of monetary policy to an independent central bank does not automatically improve inflation performance. Rather, two other aspects have to be fulfilled to make delegation effective: On the one hand, central bank reforms have to be sufficiently large, i.e., the degree of independence must increase substantially. The other aspect is that central bank reforms are only effective if the quality of the political institutions in a country is sufficiently high.

Furthermore, Way (2000) provides evidence that partisan effects play a role in the effectiveness of CBI. According to his results, in countries with very dependent central banks, a shift in government toward the right results in lower inflation and higher unemployment rates. In countries where central banks enjoy some degree of autonomy but

are not fully independent, the effect is much smaller. Finally, in countries with highly independent central banks, no differences were observed.

The effectiveness of delegation might be dependent on other variables as well. Keefer and Stasavage (2003) argue that delegation is more likely to improve credibility in the presence of multiple veto players. The same goes for political replacements of central bank governors, which are less likely if multiple veto players exist. Furthermore, Keefer and Stasavage found that this effect increases if there is a stronger polarization of veto players.

To summarize, the empirical effects of CBI seem to be less clear-cut than theoretical models suggest. The delegation of monetary policy does not automatically deliver low inflation rates. Rather, other aspects have to be taken into account as well, especially the quality of political institutions in a given country. For developing countries with high inflation rates, this is probably bad news. While the early theoretical models more or less suggested that delegation of monetary policy would improve inflation and economic performance, in reality, an improvement in political institutions in general might be necessary. Another interesting aspect is that countries that opt for delegation often do not have problems with price stability anymore. This indicates that in many cases, reforms could be driven by the attempt to tie the hands of successors rather than being responses to current economic problems.

2.3.4. Variations in central bank independence

After the previous section demonstrated that CBI reforms are often not sufficient to achieve price stability, while on the other hand many countries that implemented them had already managed to bring down inflation, another important question is the variation in CBI. CBI might not fully live up to the expectations fueled by theoretical models, but is nevertheless a very successful concept given the large number of countries that committed to it. While early empirical research unsurprisingly focused more on the effects of CBI than on the variation in CBI, economists and political scientists increasingly turned to the question of how the differences in institutional design of central banks can be explained. This section will give a short overview of the most important findings.

De Haan and Van 't Hag (1995) found that CBI is negatively related to political instability. This finding is in line with the hypothesis proposed by Cukierman that more stable countries also have more independent central banks. Moreover, the authors found

that high levels of inflation between 1900 and 1940 predicted a higher value of independence. The authors argue that countries that painfully experienced how the value of their savings decreased might be more committed towards price stability. In the same study, it was tested whether countries with universal banking systems and countries whose central banks do not regulate financial institutions have higher degrees of CBI. The authors found only limited support for this hypothesis.

The relationship between political stability and independent central banks was confirmed by Bagheri and Habibi (1998) who found that countries experiencing a high level of regime stability also tend to have high degrees of CBI. Their findings hold true for Western democracies and for highly democratic developing countries.

Daunfeldt, Hellström and Landström (2013) tested the influence of several economic and political variables on CBI. They found that countries are more likely to implement CBI reforms when a country has a history of high variable inflation. However, this effect was only observed for non-OECD countries. The authors' explanation is that OECD countries have the credibility to achieve low inflation even without changes in central bank legislation, while non-OECD countries do not. Apart from inflation history, the authors do not find any statistically significant relationship between any other economic variable and the degree of CBI. This is interesting, since it indicates that central bank reforms do not follow an economic logic, as is sometimes assumed.

The same study also checked for political determinants of CBI. The authors find that countries with a higher degree of political fragmentation are more likely to implement CBI reforms. This supports the "tying-the-hands" hypothesis, i.e., that political actors anticipate being replaced by other actors with different preferences and, therefore, opt for delegation of decision-making power. This finding, however, also only holds true in non-OECD countries. This could indicate that different functional mechanisms are at work in developing countries that in industrialized countries. The reason might be that OECD countries tend to have a higher political stability, and it is less likely that the political systems would be disrupted.

Other authors argue that CBI has to be understood in the broader context of globalization. Polillo and Guillén (2005) tested three related hypotheses empirically and found support for each one. Based on their analysis, they argued, first, that countries with a greater exposure to foreign trade or foreign investment have more independent central banks. Second, the more a country trades with other countries that already have an independent central bank, the more independent is its own central bank. Third, they found

that the more a country competes in trade against third countries with independent central banks, the more autonomous is its own central bank. The results led the authors to the conclusion that “international coercive, normative, and mimetic pressures” (Polillo and Guillén 2005, 1788) can explain why countries opt for independent central banks. It is important to note that Polillo and Guillén included political and economic control variables in their analysis, which turned out to be insignificant. Those include elections, party fractionalization as well as checks and balances, i.e., variables that are usually thought of as influencing delegation of monetary policy.

There are also studies that try to explain CBI in the context of domestic political considerations. For instance, Bernhard (1998) based his analysis of CBI on the idea that information asymmetries in monetary policymaking shape the decision to establish independent central banks. Without stating it explicitly, Bernhard uses a rational choice framework by assuming that politicians' first preference is to retain office. Because of this assumption, Bernhard theorizes that politicians have a strong incentive to implement policies that are in accordance with their voters' preferences. But voters care rather about outcomes than about the actual policies that create these outcomes.

Bernhard argues further that monetary policy is a complex field and politicians face problems to choose policies that lead to the desired outcome. This problem can be solved by delegation to an independent agency. Central bankers are informed of policy changes, they can forecast and evaluate the consequences of the government's policy. Since they are independent, they do not have to fear consequences in case they pursue policies the government does not like.

Furthermore, backbenchers and coalitions partners prefer to delegate monetary policy if they do not trust respectively the government or the dominant coalition party. Bernhard reasons that it is rational for them to fear that the government will exploit the information asymmetries. In contrast, if they trust the government, they have no incentive to pursue delegation. Based on these theoretical considerations, Bernhard develops hypotheses and tests them empirically. The results indicate an influence of class voting and bicameralism. (Bernhard 1998, 324).

This is in line with Pistoreshi, Salsano and Ferrari (2011), who found that federalism is a main determinant of CBI. At the same time, they found no significant influence of checks and balances on CBI. Tseblis (2002, 240–247) reports a positive relationship between the existence of veto players and the degree of CBI. The effect was robust to three

different CBI indices. Decentralization was also found to be significant, although to a lower extent.

Crowe and Meade (2008, 766) find that high levels of inflation are related to CBI reforms in countries that initially had low levels of CBI. This is not surprising, since this is exactly the mechanism suggested by the theoretical models underlying the concept of CBI: an independent central bank will deliver price stability, and, hence, countries with high inflation rates have to implement CBI reforms and the inflation problem will disappear. This is especially relevant for countries with low levels of CBI, since the correlation between such an institutional setting and high inflation rates can easily be interpreted as a causal relationship.

At the same time, it is plausible that countries with independent central banks and high inflation rates do not identify the institutional settings as the source of price instability. As the section on the effects of CBI demonstrated, the expectation that independent central banks automatically lead to price stability—with no further adaption needed—might not be fulfilled. However, the particular finding by Crowe and Meade shows that policymakers did buy into the concept of CBI as a remedy against high inflation rates.

Furthermore, the same study finds a relationship between CBI reforms and more democratic political systems. Crowe and Meade suggest that democratic systems are more pluralistic and involve more checks and balances, and, as a consequence, delegation is more likely. The competing explanation that democratic systems have a stronger inflation bias is rejected on empirical grounds by including an interaction term measuring the initial level of inflation. What are also interesting are the findings on economic strength and openness. The study does not find a significant relationship between either one, i.e., gross domestic product and trade openness. It does find, however, an influence of less flexible initial exchange rate regimes. Fixed exchange rates might be seen as complementary “and mutually reinforcing sources of nominal stability,” the authors argue (Crowe and Meade 2008, 766).

Cukierman, Miller, and Neyapti (2002) analyzed post-socialist countries in Central and Eastern Europe. Their study found that countries that are geographically closer to Western Europe and Germany, in particular, tend to have more independent central banks. Also, they argue that countries that have an ambition to join the European Monetary Union (EMU) might adapt in advance since joining the euro requires countries to have independent central banks. Empirically, they found this relationship could only be

observed for countries on the so-called “first fast track,” but not for countries on the “second fast track”.

Furthermore, their findings indicate that past inflation experiences had no influence on CBI reforms. The number of years between 1990 and the enactment of the reform, however, positively affected the degree of independence. These last two findings have interesting implications for this study. First, they confirm again that CBI reforms are not necessarily a response to high inflation rates because no statistically significant relationship could be observed. Second, the relevance of the time span between 1990 and the reform indicates once again that political factors are at play.

It is possible that in the direct aftermath of the collapse of the socialist systems, more radical reforms were accepted and, hence, implemented. At the same time, interest groups might have had a lower degree of organization, since the political system and society as a whole was undergoing transformation. This may make it harder for interest groups opposing CBI reforms to act against these reforms.

2.3.5. Delegation in other policy fields

Empirically, delegation could be observed not only in the case of monetary policy, but in many other policy fields as well. This leads to the question whether central bank reforms should be interpreted as a genuine phenomenon, with particular characteristics, rather than simply as an example of a broader trend toward delegation. Fernández-Albertos (2015, 221) argues that delegation of monetary policy differs substantially from delegation in other political fields in two important aspects. First, central banks influence macroeconomic outcomes that are not distributionally equivalent to those affected by other independent agencies. Second, the effectiveness of monetary policy often depends on the interplay with other economic policy actors, such as trade unions or the government and its fiscal policy.

But the differences go beyond these arguments. As Gilardi (2007) shows empirically, the mechanisms governing delegation in monetary policy and delegation to regulatory agencies seem quite different. While a higher number of veto players is found to be a precondition for credible delegation in the case of central banks, they function as substitutes in the case of regulatory agencies (Gilardi 2007, 320). Gilardi does not provide a definite explanation for these differences; rather, he points out that he finds them puzzling.

He discusses two possible answers in brief. One possibility is that countries with a higher degree of federalism are also countries with a political culture that is more oriented toward price stability as the sole purpose of monetary policy. In this explanation, the observed relationship between veto players and independent central banks is not a causal one; rather, it is influenced by the third variable political culture.

As an alternative, Gilardi argues that it might be possible that veto players are relevant, but not with respect to the credibility problem. Based on arguments by Hallerberg (2002), he states that the relevant components of veto players are federalism and multipartisanism. These two aspects make it harder for the actors involved to control policy outcomes, and so an incentive for delegation is created.

Regardless of which of the two explanations bears more explanatory power, the empirical results indicate that crucial differences between independent regulatory agencies and central banks exist and, therefore, provide a strong argument for studying central banks as a genuine case of policy delegation.

2.4. Explaining delegation of monetary policy from a rational choice perspective

After discussing the rational choice approach to institutional change in Section 2.1 and discussing the particular characteristics of central banks as monetary policy institutions in Sections 2.2 and 2.3, Section 2.4. addresses the question of how political motives lead rational actors to pursue institutional change.

2.4.1. The functionalist view and its shortcomings

One of the crucial questions for the purpose of this thesis is whether delegation to independent agencies like central banks can be explained sufficiently in functionalist terms. Do politicians simply decide to delegate because delegation improves the working of regulation in a certain policy field? In the case of central banking, did politicians learn that independent institutions are superior in performance terms and, then, decide to give up monetary policy and delegate it?

While policy learning might indeed be part of the story, it surely does not provide a fully satisfactory answer to the question of delegation. As Thatcher (2002, 106) points out, many functionalist advantages of delegation to independent agencies are long-standing. Yet, delegation was rare before the 1980s and 1990s. While Thatcher refers to independent regulatory agencies, the same point can be made for the particular case of central banks, even with the same time-frame. Pure functionalist approaches also fail to explain why delegation occurred at different times in different countries. It also bears no explanatory power for variations in delegation, i.e., why politicians in some countries design more independent central banks than in others. This point is also highlighted by Bernhard, Broz and Clark (2002, 718).

Another functionalist argument is based on information asymmetries between politicians and bureaucrats. Thatcher (2002, 105) argues that politicians increasingly lacked knowledge to understand technical issues and assess the steps necessary to achieve benefits for their voters. In the case of monetary policy, politicians may lack expertise in this complex and technical subject. Central bankers, on the other hand, do have the requisite knowledge, which makes it sensible to delegate monetary policy decisions to them. In a similar vein, Bernhard (1998, 312) argues that CBI is—apart from other aspects—driven by information problems. In this argument, legislators have high opportunity costs in the development of expertise on monetary policy. The time required for that can be used more efficiently in campaigning or other political activities. Delegation to experts solves this problem.

While these arguments surely bear some truth, again, they do not explain the whole picture. As an alternative to delegation, politicians could opt to strengthen the relevant government bureaucracies. The information asymmetry runs along these lines between politicians and bureaucrats, but it is less relevant whether these bureaucrats work in independent institutions or in government institutions.

Furthermore, some functionalist approaches are based on the assumption that delegation leads to an apoliticization of the policy fields. If a policy field is highly political and contested, it makes sense that democratic elected politicians decide over it. If, on the other hand, a policy field is merely technical, there is no need for interference by politicians. Hence, the relevant question is whether a policy problem is an optimization problem in the sense that social welfare can be optimized without creating losers, or a distributional problem that requires trade-offs between different interest groups. This is similar to Tsebelis (1990, 104) distinction between efficient and redistributive institutions. Efficient institutions make everybody better off, i.e., nobody has an interest to not pursue them, while redistributive institutions make some of the actors involved worse off.

The theoretical models used as justification for CBI are based on the assumption that central banks dependent on politicians make everybody worse off, so the problem is less a distributional one than one of inefficiency. Monetary policy setting is considered a game with rational actors, and those actors end up in suboptimal equilibrium if everybody behaves rationally. Hence, delegation is a solution that improves social welfare.

But other voices raise serious doubts over this perspective. For instance, the delegation of an important policy field like matters of money raises questions about the compatibility of an unelected and partly unaccountable organization making important policy decisions on the one hand and the concept of liberal democracy on the other hand. While central banks are bound by laws and follow a mandate that is defined by elected politicians, they are not themselves elected. Hence, their democratic legitimization is rather low. Proponents of CBI usually do not deny that delegation leads to less democratic influence over monetary policy, but they argue that this is actually desirable. Freeing monetary policy from democratic pressure would lead to a better outcome for all actors involved, so the argument goes. Therefore, the “evil” of less democracy is less important than the better performance that makes everyone better off.

To make this case compelling, a further argument is needed. Monetary policy has to be understood as a non-political and bureaucratic task. According to this argument, the goals of monetary policy are not subject to partisan fights. Rather, there is a basic

consensus on monetary matters that justifies delegation of decision-making to non-political entities. Critics of that view question these assumptions. McNamara (2002, 48) argues that monetary policy does in fact produce “partisanal policies, with significant distributional effects that raise important questions of democratic accountability.” Moreover, she argues that delegation of monetary policy to an independent agent leads to the domination of certain ideological preferences and partisan positions. The adoption of CBI, then, is less a functional necessity, but rather a highly political decision. In a similar vein, Bowles and White (1994, 256) argue that delegation of monetary policy involves “a redistribution of power over key areas of macroeconomic decision.”

2.4.2. Rational choice arguments for delegation of monetary policy

After the problematic incentives for policymakers and the inflationary bias of monetary policymaking were addressed in a previous section of this chapter, the question why delegation occurs might seem redundant. But given a rational choice framework, it is far from clear why political actors should choose the socially optimal point if such a decision is associated with losses for themselves. One might assume that given the constraints political actors face, a sub-optimal decision is more likely.

In the specific case, it might be reasonable to expect that even in a case where politicians acknowledge the existence of a problem in the long term, the preference for gains in the short term trumps the willingness to tackle them. Logically, political actors must perceive the benefits of delegation as greater than the costs if they decide to delegate nevertheless. Hence, the expected gains from CBI have to be discussed.

A strong reason for delegation to an independent institution might be politicians’ lack of credibility (Thatcher 2002, 105). Historical events—or simply a party’s basic ideological orientation—might lead investors and voters alike to believe that certain political actors cannot be trusted to create or sustain a stable economic environment. A country with a long history of monetary instability, i.e., hyperinflation, default or currency reform, may have problems in gaining investors’ trust at the capital markets. To demonstrate that things have changed, a new government might want to send a strong signal by delegating monetary matters to an independent central bank.

The second case involves political actors who lack credibility because of their ideological orientation. Left-wing parties often have a reputation of being less pro-market than right-wing parties. Investors and voters might fear reforms that are perceived as

hurting the economy when left-wing parties come to power. In the case of monetary policy, it is often assumed that left-wing parties have a stronger incentive to inflate, since they usually assign fighting unemployment a higher priority than fighting inflation. Inflation-averse voters may be afraid of voting for a left-wing party even though they might share preferences in other policy fields. As a consequence, some left-wing parties might want to signal that there is no reason to worry, by delegating monetary policy.

Maxfield (1997) provides evidence that in developing countries, politicians opt for independent central banks to signal international creditworthiness. She discusses diverse examples of countries like Brazil, Thailand and Mexico. When it comes to demonstrating credibility to the domestic audience and voters, the United Kingdom is a prominent example.⁶ The reform of the Bank of England was one of the first steps of the new elected Labour government. King (2005, 94) argues that the reform “established New Labour’s anti-inflationary credentials and delivered on the party’s campaign promise to de-politicise the setting of interest rates.”

Gilardi (2002, 876) argues that the need for credibility is associated with international interdependence. The reasoning behind this claim is clear-cut: If a country is not dependent on foreign investors, it can use or threaten legitimate violence. Domestic investors can be taxed, expropriated or forced to hold government bonds. This is not possible abroad. Foreign investors can choose to either invest in a country or not, and so, they have to be convinced by other means. If investors lack trust in a country’s currency, the country either has no possibility at all to issue government bonds to foreign investors, or only bonds denominated in foreign currencies. Public debt in foreign currencies bears a higher risk of default since investors usually assume that the risk of default is replaced by inflation risk if a country controls the currency it is indebted in. In other words, it is unlikely that countries default on debt in a currency they can create by themselves with no restrictions.

The consequence for countries relying on foreign investors is that they have to credibly signal that they are committed to sound monetary policy. In economics, the concept of signaling refers to acts that bear costs for an actor, but are necessary to demonstrate something that is relevant for a certain goal. This is exactly the mechanism at work in monetary policy delegation for reasons of credibility: Politicians decide to give up power over monetary policy that costs them the option of manipulating the economy for their goals. At the same time, they expect gains that outweigh these costs in form of easier

6 The Bank of England reform is discussed in more detail in Section 4.3.

access to foreign investors' money. Delegation becomes a rational strategy for political actors.

But politicians not only have to fear international investors, they also have to satisfy the domestic audience, especially in democratic systems. Hence, signaling credibility in certain issues may turn out to be crucial for electoral success. As Wickham-Jones (2005, 658) puts it: "Signaling is a significant feature of the process by which politicians offer reassurance to the electorate and so compete for voters". The abovementioned reform of the Bank of England by the Labour Party is only one example. Especially if political parties want to get rid of a reputation that hurts the party's electoral success, they have to find a way to convince the electorate that they are serious. Committing to delegation of monetary policy is one way to do that.

With regard to partisan orientations in monetary policy, Way (2000, 199) argues that CBI tends to favor right-leaning governments and their policy preferences, since a sole focus on price stability is more in line with their economic policy goals. Left-leaning governments, on the other hand, are usually expected to place a stronger emphasis on employment, which at the same time means a higher tolerance of high inflation rates. Way shows empirically that partisan effects play a crucial role for the success of CBI. The conclusion is that credibility concerns might play different roles, depending on the party that is in office.

Apart from credibility considerations, delegation might also result from political uncertainty. Political actors are not in office forever and they are aware of that fact. Even political actors who do not have to fear elections because there are none cannot be certain that they will not have to be ousted from power by a coup d'état or rebellion. Once a reform is implemented, it is often hard for political actors to repeal it. Sometimes certain thresholds are required, e.g., a two-thirds majority, sometimes public opinion backfires if reforms that are perceived as successful are about to be repealed. Therefore, politicians might use delegation to tie the hands of successors.

2.4.3. How political considerations lead to institutional change

After discussing different motivations for delegating monetary policy, they have to be put in the context of institutional change. As was discussed in Section 2.1, institutions are regarded as stable and in a state of equilibrium if none of the actors involved has an incentive to go in for a change. Therefore, institutional change occurs only if such a

equilibrium is disturbed. The previous section, on the other hand, demonstrated that a lack of credibility as well as the realistic prospect of losing power provides incentives for action. The question is how the two interact—and the answer is provided by RCI theory.

Section 2.1.6 demonstrated that equilibria are disturbed if the actors involved want to change the rules, which can be the case if new actors enter the game or if exogenous shocks require responses from the already established actors. In the case of central banking, the most prominent example of an exogenous shock is probably a financial or currency crisis. Such crises clearly demonstrate that the current institutional setting is not working properly. If the government wants to avoid creating the impression that it is not capable of handling the crisis in a credible way, it has to tackle the problem. A change in the institutional setting is the likely outcome. To avoid losing the confidence of either voters or international investors, the government has to commit to reforms. The initial preferences of the government with regard to the institutional status of the central bank are not crucial, if not irrelevant.

This can be illustrated by considering the following fictitious scenario. A government may consist of a party that is not in favor of CBI. The country has had a rather dependent central bank even before the party took office. Accordingly, the party saw no need to change the institutional setting, since it met its preferences anyway. Then a currency crisis hits the country, with all its negative effects on the economy in general, and the price level in particular. Voters expect the government to respond to and tackle the crises.

The obvious choice is changing the monetary policy setting; this is something the party in office initially did not want to do. But given that the country was hit by a currency crisis, the alternative of sticking to the initial preferences might prove costly, since the government might lose its credibility with voters and international investors alike. The crises changed the costs of not reforming by increasing the salience of the monetary policy setting. Delegation of monetary policy becomes a rational strategy for the party in office, even though it initially wanted to avoid it.

A similar fictitious scenario can be thought of with regard to uncertainty. A government that initially does not prefer delegation of monetary policy might change its preferences if the prospect of losing power becomes real. If the government of a given country consists of a party that rejects CBI and prefers to influence monetary policy directly, the institutional setting does not change, since it is in a state of equilibrium. But if election day comes near and all polls indicate that the opposition party is likely to receive a

majority, the party in office might think again. While its first preference probably is direct influence over monetary policy, it most likely prefers an independent central bank, with a board consisting of members it has appointed itself to a dependent central bank controlled by its successors in government. In this scenario delegation becomes rational again.

A similar mechanism is at work with regard to ideology-driven credibility deficits. Left-wing governments might, in principle, favor exerting direct influence over monetary policy. Still, they surely prefer delegation of monetary policy over troubles on the financial markets or opponents being able to paint the government as economically irresponsible. A sell-off of government bonds or the country's currency on the financial markets does not only exert financial pressure on the government, it also undermines the incumbent party's electoral prospects. Thus, their first preference might produce electoral and financial costs that outweigh the expected policy benefits. As a result, delegation is their second preference. In contrast to the first two examples, the institutional change was not triggered by an exogenous shock, but was the result of a changed actor constellation.

2.5. Hypotheses

Based on the considerations outlined in the previous sections, three empirical hypotheses are formulated and tested. Two of them are based on credibility considerations, the other one is based on uncertainty.

H1: *Countries that experience economic crises are more likely to implement more radical central bank reforms.*

The reasoning behind this hypothesis is clear-cut. Central banks are responsible for keeping the economy on a stable track, and crises are an obvious sign that they have failed to do so. Hence, the need for reforms becomes apparent. The argument can also be seen in the context of credibility considerations. Crises make the mismanagement of political actors in monetary policy obvious, and a loss of credibility is the result. Political actors calculate that their costs, i.e., losing power over monetary policy, are exceeded by their gains, i.e., experiencing stable monetary conditions again.

The hypothesis is not limited to a certain type of political system. The pressure might be stronger in democratic systems, where politicians fear punishment at the ballot box. But even without elections, non-democratic governments often draw their legitimacy

of their economic performance. China is a prominent example. Furthermore, the need for credibility is not limited to elections, but is also an important aspect on financial markets. Both democratic and non-democratic countries might fear a lack of credibility in the face of currency crises, and view delegation of monetary policymaking as the lesser evil.

Also, the hypothesis is not limited to a certain type of financial crisis. Inflation crises and currency crisis are often two sides of the same coin and occur at the same time. In many cases, major banking crises are also related to the former. All of them indicate unstable financial conditions and bear problems for political actors, who often want to be perceived as being in charge of the economy. Hence, the hypothesis takes financial crises of all types into account since the mechanism with regard to the loss of credibility is expected to be the same.

The relationship between crises and reforms has been subject to intense research in empirical economics. One example is Drazen and Easterly (2001), who found support for the crisis-induces-reform hypothesis, among others, in the case of high inflation rates. Note that reforms in this case were not limited to central bank legislation, but included all kind of policy changes.

H2: *Left-wing governments are likely to implement stronger central bank reforms than right-wing governments.*

At first glance, this hypothesis might seem counter-intuitive. The concept of CBI should rather meet preferences of right-wing parties than left-wing parties, it is commonly assumed. Since left-wing governments are less worried about inflation than about unemployment, they should oppose independent central banks because they limit their room to maneuver to stimulate employment via monetary policy. It is exactly this reasoning that provides the basis for this hypothesis. Given the underlying assumption that rational political actors use delegation as a step to improve their credibility, left-wing parties have a stronger need to demonstrate commitment to stable economic policies than right-wing parties.

Owing to their history and their assumed preferences, international financial markets as well as the domestic electorate might perceive a “credibility deficit” for left-wing parties. They have to counteract this expectation, and delegation—as strongest form of commitment—becomes a rational strategy. Ennsner-Jedenastik (2014, 5–6) makes a similar case with regard to independent regulatory agencies. Based on Shepsle’s (1991)

distinction between motivationally and imperatively credible commitments, he argues that policy credibility depends on government ideology in the sense that left-wing governments are generally more credible in some policy areas than right-wing governments and vice versa.

In the case of monetary policy, it can be assumed that right-wing governments have higher credibility and, hence, left-wing governments have a stronger need to counteract their perceived deficit in credibility. Accordingly, Milesi-Ferretti (1995) argues that left-wing governments have a stronger incentive to delegate monetary policy than right-wing governments because an independent central bank would increase the chances of left-wing parties at the ballot box.

This is in line with the empirical findings by Way (2002), which demonstrated that governmental shifts to the left do not lead to higher inflation rates in cases where central banks are independent, while it is indeed the case in countries with more dependent central banks. Both investors and voters, therefore, have reason to fear a left-wing government taking office would result in higher inflation rates in countries where the central bank is not independent. Delegation of monetary policy is a rational response for left-wing governments, and also a successful one, as the results by Way indicate. With regard to fiscal policy, Tavares (2004) demonstrated that left-wing parties successfully gain credibility in cases where they commit to spending cuts.

Further evidence comes from Belke and Potrafke (2012), who found that short-term interest rates are higher under left-wing governments than under right-wing governments if a central bank is independent. The opposite is the case if countries have central banks that are stronger under political control. Belke and Potrafke concluded that left-wing governments have delegated responsibility for more market-oriented policies to central banks. Apart from gaining credibility, such measures can also be interpreted as shifting the blame for unpopular policies, as suggested by Thatcher and Stone Sweet (2002, 4) in respect of delegation to non-majoritarian institutions in general.

H3: *Governments whose terms of office are ending are likely to implement stronger central bank reforms.*

Central bank independence is often associated with limiting the room for governments to maneuver. This is also reflected in the former two hypotheses since, in both cases, the expected gain in credibility is based on the government's commitment to keep its hands off

monetary policy. In other words, the government is tying its own hands. In contrast, the third hypothesis is based on the assumption that political actors try to tie the hands of future governments. It is based less on credibility and more on uncertainty. Governments do not stay in office forever and future governments might implement policies that current governments want to avoid.

As Goodman (1993, 334) points out, the need to tie the hands of a future government is directly associated with the realistic prospect of losing power: “Political leaders who expect their party to be in office for a long time [...] will seek to protect, if not increase, their room for maneuver.” He further argues that even conservative governments whose monetary preferences should be in line with those of independent central banks will refrain from delegation of monetary policy if they see no realistic chance of losing power.

Based on these considerations, it is assumed that political actors’ awareness of the possibility of being replaced increases as their term of office ends. Apart from matters of perception, politicians in office can judge their chances of losing power better at the end of a term than at the beginning, for the simple reason that the time span in which those chances could change is smaller. In liberal democracies, parties usually have polls that allow them to realistically assess their chance of re-election. Tying the hands of future governments can also play a role in countries that experience a transition from authoritarian rule to democracy. A classic example is the reform of Chile’s central bank in 1989, which went into effect four days before presidential elections were held (Boylan 1998, 454). Another example is the reform in Mexico in 1993 (Maxfield 1997, 64).

While future governments theoretically could repeal the respective central bank legislation, it is unlikely in practice. Goodman (1993, 216) argues that few governments are willing to risk a loss of confidence in the international financial markets by doing so; something that happened in Venezuela in 1994 (Boylan 1998, 450) and in Brazil in 2002 (Hicks 2003, 1).

3. OPERATIONALIZATION, DATA, AND STATISTICAL ANALYSIS

3.1. Operationalization and data

The hypotheses are tested statistically by using regression analyses. To do so, a quantitative measure of CBI is required as a dependent variable. Accordingly, the three hypotheses have to be operationalized for use as independent variables in the regression models. In the following, it is discussed how the institutional position of a central bank can be quantified. Different approaches and methodological problems are addressed. Furthermore, it is discussed how the independent variables are calculated and where the data comes from.

3.1.1. Quantifying central bank independence

There have been attempts to quantify CBI as recently as the 1980s, primarily by economists. More specifically, it was tried to compare central banks over several countries with regard to their relationship to the government by assigning concrete numbers to every central bank. The early attempts were limited in terms of sample size and included only a few variables to quantify the degree of independence.

Bade and Parkin (1982) constructed a CBI index that ranked central banks on a scale from 1 to 4 with regard to “political independence.” The index included twelve countries and was further developed by Alesina (1988), who added four more countries. Both indices tried to capture and quantify the relationship between the central bank and the rest of the executive. They analyzed the procedure to the nomination and dismissal of the central bank governor, the role of government officials on the central bank’s board, and the amount of contacts between the central bank and the rest of the executive (Alesina and Summers 1993, 153).

Grilli, Masciandaro, and Tabellini (1991) proposed a more nuanced index that did not only include political independence, but also economic independence. While the definition of political independence is quite similar to the one used in the already mentioned indices, economic independence refers to the ability of the government to borrow from the central bank, but also to the monetary instruments the central bank controls (Grilli, Masciandaro, and Tabellini, 368–370). The index was applied to 18 countries, mostly liberal democracies in Western Europe plus the United States, Canada, Australia, New Zealand and Japan.

An index with a much broader sample was presented by Cukierman, Webb, and Neyapti (1992) and further developed in Cukierman (1992). The Cukierman index includes 72 countries and is not limited to industrialized countries. The exact methodology of this index is discussed in Section 3.1.4. The index was not a snapshot that included the degrees of independence at a specific point in time; rather, it captured central bank legislation for a longer time span between the 1950s and the 1980s. Owing to its comprehensive nature both in terms of sample size and methodology, the Cukierman index became the most widely employed tool in research on CBI (Klomp and de Haan 2010, 594; Gilardi 2007, 313).

However, since the publication of the index predated the global wave of central bank reforms in the 1990s, the biggest share of it was not captured. Therefore, some authors updated the index by following the exact same methodology. For instance, Crowe and Meade (2008) replicated the Cukierman index with data from the IMF's database of central bank laws from 2003. Bodea and Higashijima (2015) provided new data for 78 central banks for the time span from 1970 to 2007. While they applied the Cukierman methodology, they did not limit themselves to just updating the index. Rather, the recalculated values for central banks already captured in the Cukierman index, sometimes with results different from those of the original index.

3.1.2. Measurement problems in quantifying central bank independence

Since most of the research on the effects of CBI is contingent upon one or more of those indices, the question arises as to how reliable they are. Despite the wide-spread acceptance especially of the Cukierman index, some authors criticized quantitative measures of CBI on substantial grounds.

A study by Mangano (1998) tried to test the robustness and the degree of subjectivity of established CBI indices. His analysis of the Cukierman index as well as the Grilli, Masciandaro and Tabellini index finds that both contain a large degree of subjectivity. In the light of his results, Mangano concludes that the established research on the effects of CBI should not be taken at face value since it is unclear what the indices actually measure. He points out, however, that these findings do not contradict the empirical literature on CBI effects in the sense that those results are falsified. Rather, his study claims that they are unreliable and, as a consequence, the actual effects of CBI are largely unknown.

Cargill (2013) also questions the reliability of CBI indices. He argues that while CBI indices are not completely uninformative, their reliability has been overstated. CBI indices should be understood as broad ordinal measures and not more. To back that claim up, Cargill uses two well-established CBI indices and groups the cases considered in those indices in only two categories: dependent and independent central banks. Replacing the more nuanced CBI measure with a dummy variable in accordance with the new grouping, he is able to replicate the standard correlations of CBI research. Furthermore, Cargill also argues that the correlations between inflation and CBI are less stable than the empirical literature suggests. He also argues that CBI indices often fail to capture the degree of actual independence and further elaborates this claim in respect of the cases of Japan, South Korea and the United States.

But even advocates of the established CBI indices point out their limitations. In fact, Cukierman (1992, 369–371) himself discussed measurement problems in detail when he introduced his often-used index. He pointed out that formal and actual independence might diverge in many cases, since the latter is contingent on many aspects that are not necessarily captured in the words of the law. Those aspects include the personalities of key individuals in the central bank as well as in the Treasury and even the quality of the central bank's research department. The latter is especially relevant with regard to information asymmetries, as discussed by Bernhard (1998).

Cukierman acknowledges that these rather informal aspects are hard to quantify. His solution to this problem is to limit the CBI index to formal variables and capture the informal points by alternative measures. To be more specific, he proposes two indicators. The first one is the turnover of central bank governors as a proxy for actual independence (Cukierman 1992, 383). If a governor loses his or her job frequently, the central bank is probably not really independent, regardless of the text of the law. This approach has its limitations, since a governor that always gives in to the governments' demands is unlikely to be replaced, as Cukierman himself acknowledges. The second alternative measure is a questionnaire handed out to monetary policy specialists (Cukierman 1992, 386). The reasoning is that experts' answers capture both informal and formal aspects and, hence, the blind spots of the index based on formal legislation are also covered. The downside of the questionnaire method is that it always involves a certain degree of subjectivity.

The methodological question regarding the reliability of CBI indices is an important one, and the central question is whether quantifying formal aspects captures all relevant dimensions of independence. While this is probably not the case, it does not

necessarily bear a problem for the research interest of this thesis. Building on a RCI framework, the variable of interest is specifically change in central bank legislation, as opposed to actual autonomy. In other words, the actual degree of autonomy is less relevant than the degree of independence the political actors meant to transfer to the central bank.

This follows directly from the fact that institutional change is explained by actors' motivations. RCI assumes that actors' expected gains are crucial for institutional change. Political actors have the power to change formal institutions by changing legislation, and the changes in the relevant laws reflect the point that the actors involved not only prefer the new version to the old, but also that they are willing to pay the transaction costs. It is a tautology to note that if such changes have unexpected consequences, they were not discounted by the actors involved. Still, this is what describes the discrepancy between formal and actual independence.

3.1.3. Operationalization of the dependent variable

The dependent variable is operationalized by using the CBI index from Bodea and Higashijima (2015). As already mentioned, it follows the methodological approach by Cukierman (1992), but provides a more comprehensive data-set that also includes more recent observations. In contrast to Crowe and Meade (2008), it is not limited to an updated version of the original index at a specific point in time, but includes values for every year over a long time period. More specifically, the Bodea and Higashijima data-set provides values for 78 central banks from the 1970s until the early 2010s. Reform years can be easily detected by observing changes in the CBI value over time, but they are also disclosed explicitly in the article's appendix. The degree of a reform can be calculated simply by subtracting the pre-reform value from the post-reform value. In accordance with the methodology of the index, positive values indicate enhanced autonomy for the central bank.

But there are still two problems that have to be addressed. First, the aim of this thesis is to explain major shift in central bank legislation. This does not include minor and insignificant changes in central bank laws. In accordance with the theoretical considerations and the hypotheses stated, it is, therefore, plausible to restrict the observations used in the analysis to cases that exceed a certain threshold. While it should be avoided that minor changes in central bank legislation bias the analysis, it is also necessary to use a broad enough sample that reflects the diversity of countries with regard

to variables such as the political system and their economic development. Hence, the threshold should not be too low. A value of 0.10 points seems appropriate. Given that the scale ranges from 0 to 1, reforms that change the degree of independence less than 0.10 points can surely be considered insignificant. Accordingly, reforms with change scores of under 0.10 points are excluded from the further analysis. This is relevant for 13 observations, which reduces the data set to 64 observations.⁷

The second problem is that initial levels of CBI values might influence the degree of the reforms. To address this issue, the initial level of CBI has to be included as a control variable in the regression analysis. Since a clear relationship between the degree of reform and the pre-reform status exists, it follows that the change score is not independent of the initial CBI level. Hence, it is appropriate to use the post-reform CBI level as dependent variable, which then allows for baseline adjustment.

3.1.4. Methodology of the Cukierman index

Cukierman uses sixteen variables to classify central banks. These variables can be divided into four groups (Cukierman 1992, 372). The first group comprises variables that measure the institutional position of the central bank's head, i.e., the governor. Cukierman further distinguishes between four aspects of the this group. The first one is the term of office in years. The highest possible value is 1, which is assigned to every central bank where the governor is in office eight years or longer. Central banks with terms that are shorter than eight years but longer than five years receive a value of 0.75 points. Accordingly, five years are coded with 0.50 points, four years with 0.25 points, and anything under four years receives 0 points.

The longer a term is, the less a sitting governor has to care about his pendants on the side of politics. A governor with an eight-year term is even likely to "outlive" governments. In contrast, a three-year term implies the government has quite often the chance to appoint governors with preferences that match their own. Even though re-election is not considered formally in the Cukierman index, it is also relevant with regard to the term of office. If a government can appoint central bank governors every three years, the governor might have, in his monetary policy decisions, an eye on re-appointment. After all, the point at which the government has to decide about the future leadership of the central bank is always just around the corner. This is far less the case if the government can

⁷ For the statistical analyses carried out in this thesis three more cases are excluded due to missing data with regard to an independent variable. These countries are Moldova, Turkmenistan and Uzbekistan.

make this decision only every eight years. In this case, it is far from the clear that the government will even be in office when the decision day arrives.

The next variable is the right of appointment. Cukierman distinguishes between four possibilities, in which the highest value is assigned to central banks where the central bank board itself can appoint its governor (1.00 point). Cukierman assigns 0.75 points to a central bank where the decision-making power lies with a committee that includes members from executive and legislative branches as well as from the central bank's board. If the governor is appointed by the legislative branch alone, it is coded with 0.50 points, while an appointment by the executive branch alone receives 0.25 points. The case that is considered the least independent (0.00 points) is when the governor is appointed through the decision of one or two members of the executive branch. Further explanation of this coding decisions is barely needed: a central bank that does not rely on politicians in choosing its governor is, of course, displaying a sign that its independence is very high, while the opposite is the case if government leaders alone have the power to make decisions.

Probably as important as the right to appoint a governor is the right to remove a governor. Everything that was discussed in the theoretical sections of this thesis leads one to believe that it is a question of time until serious conflicts of interest between the central bank and the government arise. In fact, the theoretical foundation for CBI assumes that autonomous monetary policymakers are needed because they have to take decisions that politicians are not capable of taking due to their preferences. If central bankers then act against politicians' preferences, resistance from politicians has to be expected. In extreme cases, politicians will try to remove the head of the central bank. Such situations are crucial tests for CBI which prove whether or not the concept lives up to its expectations.

Accordingly, Cukierman assigns the highest value to central banks that have no provision at all for dismissal of the governor. A relatively high value of 0.83 points is assigned if dismissal is only possible for non-policy reasons, i.e., violations of law. Subsequently, Cukierman distinguishes along the same lines as in the case of appointment, e.g., assigns a higher values if the central bank's board has the capability to dismiss the governor and lower values if the legislative or the executive branches decide. The least independent central banks are institutions where the executive branch has the unconditional power to remove a governor. Even though transaction costs might make the dismissal of an unwanted governor more costly than in a case where the ministry of

finance itself decides on interest rates, it is still relatively easy for politicians to remove a governor.

The fourth aspect compromises possible other offices a central bank governor holds. Only three distinctions are made: It is not allowed for the governor to hold another office in government, it is allowed only if the executive branch authorizes it, and it is generally allowed. If the governor is restricted by law from holding any other office in government, the highest value is assigned, since this is the case where the least dependencies are assumed.

The logic between the coding is clear-cut in all four cases: If a central bank governor has less to worry about how his or her actions are perceived by the executive branch, he or she enjoys greater independence.

The next group consists of variables related to actual policy or, as Cukierman puts it, “policy formulations.” The index uses three variables. The first one simply measures who formulates monetary policy. There are four possible categories, ranging from the central bank alone as the authority to formulating monetary policy to the government alone formulating monetary policy. The second variable refers to the resolution of conflict between government and the central bank and the power of government directives. Six different manifestations of the variable are possible along the usual lines already discussed with regard to the other variables. Finally, there is a binary variable that measures whether or not the central bank has an “active role” in the formulation of the government’s budget.

The third group is rather small, it consists of only one variable, and it measures the central bank's objectives. This is relevant with regard to the question whether central banks should have a single mandate (e.g., achieving price stability) or a dual mandate (e.g., achieving price stability, and also full employment). This variable refers to a potential source of political conflict and since central bank mandates are the guidelines in which monetary policymakers operate, requires some further discussion.

The highest value is assigned to mandates that specify price stability as their only or major goal and state that in cases of differences of opinion between the government and the central bank, the latter still can pursue policies aimed at achieving the primary goal, i.e., price stability. Central banks that fit this category qualify for 1.00 point. This category has to be distinguished from the second one (0.80 points) where the mandate also mentions price stability as the only goal but no further specification is made for situations of conflict with the government. Note that this refers specifically to the central bank objectives and does not measure actual behavior in case of conflict. It is perfectly possible that

empirically no differences between central banks in the first and the second group could be observed.

The third category consists of mandates in which price stability is mentioned with other objectives that Cukierman views as not in conflict with price stability. He refers to stable banking as an example. These central banks are assigned a value of 0.6 points. The final category still accounts for 0.40 points and refers to cases where price stability is mentioned with a number of potentially conflicting goals. Cukierman mentions full employment as an example. As discussed in the theoretical sections, most economists assume that monetary policy cannot boost employment in the long run. Rather, short-term gains in employment lead to social welfare losses via higher inflation.

The fourth group is the largest one. It consists of eight variables. These all refer to restrictions on central bank lending. While the variables on governor dismissal and the mandate measure rather direct dependencies, these variables point to indirect sources of political influence over the central bank. Not all eight variables will be discussed in detail. The first two variables measure limitations on advances and securitized lending. The stricter the restrictions, the higher the value of independence. The next variable refers to the terms of lending and who has the decision-making power over those terms. Again, central banks that are autonomous in their decisions are ranked as being more independent than those in which the executive branch has a say. Then, the circle of potential borrowers is measured in a variable. The possible manifestations of the variable include lending only to the central government, lending to the central government as well as state governments and subdivisions, lending to the institutions mentioned plus less than two public companies, and lending to all of the above as well as to the private sector. Again, the more restrictive the rules are, the more independent a central bank is considered.

The next variable specifies the type of limit when such limits exist. This is a rather technical aspect, but does have practical and also political implications. If the limit is specified as an absolute cash amount, the central bank is much more restricted than in a case where the limit refers to a percentage of government expenditures. Since the government more or less controls its expenditures, it also determines the amount of central bank lending in such a case. Hence, the central bank is directly dependent on government decisions. Accordingly, Cukierman codes such limits with 0 points. Then variables on the maturity of loans and restrictions on interest rates follow. These are quite similar to the already discussed lending variables. Shorter maturities of central bank loans indicate more independent central banks, longer maturities point to less independent institutions, since

long maturities border on monetary financing. The interest rate variable measures differences with the market rate or legal restrictions (e.g., interest rate ceilings).

Finally, there is a variable that measures prohibition on lending in the primary market. This is a binary variable with the manifestations “yes” (1 point) and “no” (0 point). While the variable is defined in rather technical terms, its political relevance should not be overlooked. The primary market is the part of the bond market where states auction their bonds, as opposed to the secondary market where bonds can be bought by other bond-owners. If a central bank is participating in the primary market, it buys bonds from the government. More bluntly, the central bank finances government expenditure by newly created money. Monetary financing is considered to be inflationary and even a potential source of hyperinflation, i.e., related to negative effects on the economy. At the same time, it is exactly something that should be avoided by making the central bank independent. Accordingly, a central bank that is not prohibited from monetary financing cannot be expected to achieve the effects one expects from monetary policy delegation.

3.1.5. Operationalization of the hypotheses

To operationalize hypothesis H1, some measure of financial crisis is necessary. From a theoretical perspective, there are no reasons to assume that currency crises have different effects with respect to central bank reforms than banking crises or financial crises. Therefore, one dummy variable capturing banking, currency, or inflation crises is used. Apart from theoretical considerations, this is necessary because of methodological considerations in respect of the independence of explanatory variables. For instance, currency crises may often occur at the same time as inflation crises. The same goes for banking crises. Hence, these events are not independent in the statistical sense and cannot be used as distinct independent variables in regression analyses.

Crises are assumed to be associated with a central bank reform if they occurred up to three years before the reform. Especially in parliamentary democracies, it is plausible to assume a certain lag between the external shock, that is, the respective crisis, and the implementation of a reform. Shorter time periods might miss cases where the process from acknowledging the need for reform to the actual implementation took some time. Longer time spans would bear the danger of becoming somewhat random and less convincing with regard to causality.

Still, there is some evidence that it might even take longer than three years. For instance, Sweden passed its central bank reform in 1998, about five years after the big economic crisis. The parliamentary debates on the reform showed that the crisis played a role in reforming the central bank. Also, there have been earlier attempts at reform, which did not pass. However, the Swedish central bank reform is treated as not being associated with the economic crises due its long time lag. Quantitative research always faces trade-offs, and a time span of three years seems like a reasonable compromise. Data for the dummy variable comes from Rogoff and Reinhart (2009) as well as from Gourinchas and Obstfeldt (2011) for both banking crises and currency crises. Inflation data is used from the World Bank database.

Hypotheses H2 and H3 are also operationalized with dummy variables. The classification whether a government is left-wing or not follows the Database of Political Institutions by Beck et al. (2001). It classifies governments either as left, right or centrist. The data for H3 comes from the Database of Political Institutions as well. The database shows for each year how long an executive has been in power, but also how long the current term lasts. Values of 0 signal years with a change in government, in liberal democracies these are usually election years. A dummy variable is coded for observations with values of 0 or 1.⁸

3.2. Statistical analysis

To give the reader some insight into the data set, the basic characteristics of the data used later on in the regression analysis are discussed in the next section. These figures are descriptive in nature; the multivariate model and the results from the regression analysis are presented in Sections 3.2.2 and 3.2.3.

3.2.1. Descriptive Statistics

Graph 1 shows the frequencies with which central bank reforms of certain degrees took place. As discussed in Section 3.1.3, minor reforms were removed from the data-set to ensure that they do not bias the analysis. Even with the adjustment, the number of

⁸ In cases with values of 0, it was checked whether the reform really was implemented by the outgoing government since it cannot be ruled out that a new government takes office and passes a central bank reform immediately. This was the case with one observation, the United Kingdom, where the variable was adjusted accordingly to capture the fact that the reform was passed by the newly elected Labour government and not by the outgoing Tory executive.

moderate central bank reforms is quite high.⁹ A relative majority of countries implemented central bank reforms ranging from 0.2 to 0.4 points on the CBI scale.

Given the fact that the degree of reform is dependent on the initial level of CBI in a sense that the scale is limited by 1.0, the amount of reforms that changed the degree of CBI from 0.4 to 0.6 points should not be underestimated. On a scale from 0.0 to 1.0, reforms of that degree are quite strong even without taking the initial level into consideration. Apart from that, the graph also shows that a handful of quite radical reforms took place that changed the degree of CBI within a very high range from 0.6 to 0.8. Nevertheless, there is no reform that changed the degree of CBI by more than 0.8 percent.

Furthermore, the graph shows that only one reform reduced the autonomy of the central bank. Of course, there is no natural law that states that CBI has to increase always and everywhere. However, the graph provides strong evidence for the global trend toward more autonomous central banks in the last two decades.

GRAPH 1. Frequencies of reform degrees

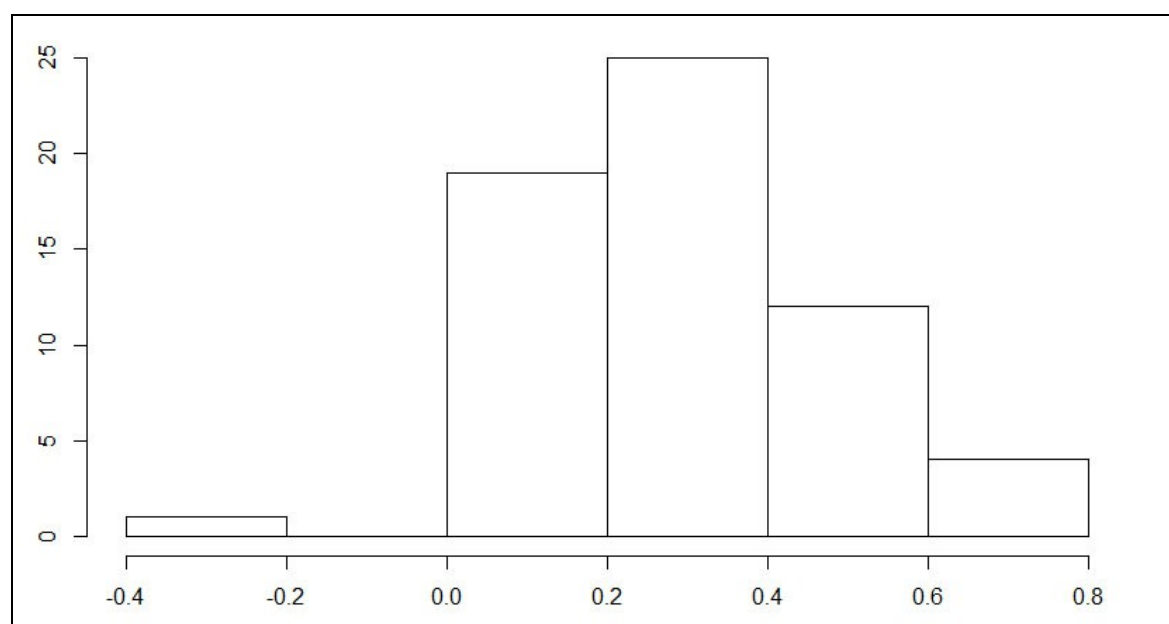


Table 1 lists some characteristics of the central banks in the sample prior to the reforms. As already discussed, the values refer to the degree of independence and higher values indicate a higher degree of independence. Since different reforms are analyzed, this table

⁹ Note that due to the adjustment, the category capturing reforms within the range of 0.0 to 0.2 does, in fact, only include cases from 0.1 to 0.2.

naturally does *not* depict the relevant central banks at a certain period of time. The reforms took place at very different points of time and the values reflect this.

TABLE 1. Central bank independence, prior to the reforms

Mean	Median	Min	Max	Std.
0.398	0.400	0.070	0.850	0.163

The mean and the median of the sample are quite closely related, which indicates that no massive outliers are present. The minimum value is 0.07, which is a very low value, given the scale ranges from 0.00 to 1.00, and is about two standard deviations lower than the median. On the other hand, the maximum value of 0.85 is quite close to the fully independent central bank, which would score 1.00.

TABLE 2. Pre-reform degrees of CBI, minimum values.

	<i>Country</i>	<i>Value</i>	<i>Year</i>	<i>Polity score</i>	<i>Development</i>
1.	Uruguay	0.07	1994	10	Upper middle income
2.	Indonesia	0.16	1998	-5	Low income
3.	Norway	0.17	2002	10	High Income
4.	Ukraine	0.18	1998	7	Lower middle income
5.	Japan	0.18	1997	10	High income

Table 2 shows the five countries with the lowest values of CBI prior to the implementation of reforms. Apart from the reform-related data, it also shows the country's Polity score and its level of economic development. The Polity score is a measure of democracy and ranges from -10 to +10. The more democratic a country is classified as, the higher the value. Negative values indicate non-democratic countries. The economic development classifications are taken from the World Bank database.

Uruguay clearly leads the field with a very low CBI score. The rest of the countries in the table have somewhat higher and very similar scores. While Uruguay's score is about two standard deviations under the mean, the other four countries are more than one standard deviation from the mean. The column reporting the pre-reform year shows that all five countries implemented reforms from the mid-1990s to the early 2000s, indicating that they lagged slightly behind the average.

Furthermore, the table demonstrates that four out of five countries were considered democratic at the time when the reform was implemented. Indonesia is the only country with a negative Polity score indicating an authoritarian system. The country was also classified as a low-income country in 1998. Development levels, however, seem to be unrelated to low values of CBI in this sample. Norway and Japan are high-income countries, Uruguay and Ukraine middle-income countries.

Table 3 shows the maximum values of countries prior to the implementation of their respective reforms. The first three countries are more than two standard deviations over the mean, which means that they did not have very much room left to further increase their CBI scores.

The column reporting the pre-reform year is particularly interesting in this case, since all countries in the table implemented their reforms in the early 2000s. Hence, those reforms occurred at a rather late stage within the global wave of central bank reforms. Polity scores indicate mostly middle and high values of democracy, while the development classifications, on the other hand, demonstrate relatively low levels of economic development.

TABLE 3. Pre-reform degrees of CBI, maximum values.

	<i>Country</i>	<i>Value</i>	<i>Year</i>	<i>Polity score</i>	<i>Development</i>
1.	Armenia	0.85	2001	5	Low income
2.	Slovakia	0.74	2001	9	Upper middle income
3.	Belarus	0.73	2000	-7	Lower middle income
4.	Guatemala	0.68	2001	8	Lower middle income
5.	Romania	0.65	2003	8	Lower middle income

Not shown in the table, but nevertheless interesting is the fact that four of these five countries are post-socialist countries in Central and Eastern Europe. In combination with the rather late reform years, this makes sense. Those countries mostly have rather young central banks. In many cases, they established central banks with a relatively high degree of independence in the early 1990s. The reforms in the sample might not be the first central bank reforms in the respective countries, a point that is also indicated by the reform years. As a matter of fact, three of the five countries are captured in the overall sample with another reform that was implemented at an earlier stage.

Table 4 shows the countries that implemented the most far-reaching central bank reforms. Three of the five countries are euro zone members. Those countries have high Polity scores, indicating stable democracies, are classified as high-income countries, and implemented their reforms in the early 1990s. The latter can be attributed to the Maastricht Treaty, which was passed in 1992, and disclosed the requirements for membership in the EMU. All three countries aimed to participate in the EMU, and responded by changing the institutional status of their central banks.

TABLE 4. Degree of CBI reform, maximum values.

	<i>Country</i>	<i>Value</i>	<i>Year</i>	<i>Polity score</i>	<i>Development</i>
1.	Indonesia	0.78	1998	-5	Low income
2.	Spain	0.73	1993	10	High income
3.	France	0.66	1992	9	High income
4.	Italy	0.63	1994	10	High income
5.	Ukraine	0.59	1999	7	Lower middle income

Table 5 shows the countries that implemented the least far-reaching reforms. The countries are quite diverse with regard to their level of democracy and also with respect to the reform years. Economically, most of them are middle-income countries. Probably the most interesting aspect in this table is that four of the countries also show up in the table for countries with the highest pre-reform degrees of CBI.

TABLE 5. Degree of CBI reform, minimum values.

	<i>Country</i>	<i>Value</i>	<i>Year</i>	<i>Polity score</i>	<i>Development</i>
1.	Belarus	-0.35	2000	-7	Lower middle income
2.	Slovakia	0.10	2001	9	Upper middle income
	Malaysia	0.10	2008	6	Upper middle income
4.	Armenia	0.11	2001	5	Low income
	Guatemala	0.11	2001	8	Lower middle income
	South Africa	0.11	1988	4	Lower middle income
	Kazakhstan	0.11	1995	-3	Lower middle income

Given the fact that countries cannot score higher than 1.00 in the CBI scale, they, of course, had a limited room for increases. However, it is interesting that this effect indeed

dominates within the group of less far-reaching reforms. This provides an indication that countries with low CBI scores prior to the reforms are more likely to implement reforms.

Table 6 shows the values for CBI after the reforms. As expected, they indicate a massive shift toward more independence. While the mean and the median were nearly identical in the post-reform data, the mean is a little bit lower than the median in the post-reform sample, indicating that the presence of at least one outlier can be assumed. The new median (0.74) is closer to the old maximum value (0.85) than to the middle of the CBI scale.

The minimum value is also clearly higher than in the pre-reform sample, with 0.33 compared to 0.07. The maximum value shifted moderately and is quite close to 1.00 in the post-reform period. Interestingly, the standard deviation decreased, but only slightly. It can be concluded that the changes between the pre- and the post-reform periods were not driven by few radical reforms.

TABLE 6. Central bank independence, after the reforms

Mean	Median	Min	Max	Std.
0.713	0.740	0.330	0.960	0.156

Table 7 shows the countries with the most independent central banks after the reforms were implemented. With Spain and France, two European Union and euro zone members are among the countries with the most independent central banks. The other three countries are low or lower middle-income countries, with Indonesia and Chile both having non-democratic political systems at the time the reforms were passed. Armenia, on the other hand, scored fairly high on democracy, while being in the lowest group according to economic development. Hence, the table provides no clear indication for patterns.

TABLE 7. Post-reform degrees of CBI, maximum values.

	<i>Country</i>	<i>Value</i>	<i>Year</i>	<i>Polity score</i>	<i>Development</i>
1.	Spain	0.96	1994	10	High income
2.	Armenia	0.95	2002	5	Low income
3.	Indonesia	0.94	1999	-5	Low income
4.	France	0.90	1993	9	High income
5.	Chile	0.89	1989	-1	Lower middle income

Similarly, Table 8 demonstrates a relatively high variance in all respects between countries with low post-reform degrees of CBI. Two high-income and democratic countries are among them, two countries with non-democratic political systems, and three countries classified as lower middle income ones. The time range in which the reforms were implemented is quite high, ranging from 1989 to 2003.

A clear pattern cannot be detected. Contrary to the last table and, given the Maastricht Treaty, as expected, no euro zone country is found among the countries with the lowest CBI values after the implementation of reforms.

TABLE 8. Post-reform degrees of CBI, minimum values.

	<i>Country</i>	<i>Value</i>	<i>Year</i>	<i>Polity score</i>	<i>Development</i>
1.	Norway	0.33	2003	10	High income
2.	South Africa	0.34	1989	4	Lower middle income
3.	Belarus	0.38	2001	-7	Lower middle income
4.	Kazakhstan	0.42	1995	-3	Lower middle income
5.	South Korea	0.45	1998	6	High income

Table 9 provides an overview of the degrees of reforms. The median reform degree in the sample is 0.315, which is a little less than a third of the CBI scale used in this thesis. This is a relatively high value, since the median prior to the reforms was at 0.40. Countries that scored 0.69 or higher prior to the reforms could not have reached the median for the simple reason that the scale ends at 1.00, with a perfectly independent central bank.

However, only three countries actually scored values higher than 0.71, and two of them—Belarus and Slovakia—only slightly. When looking at the data, however, it should not be forgotten that the sample was limited to major central bank reforms and reforms that changed the CBI value only by less than 0.10 points were omitted. While this was a necessity, since otherwise small reforms would have biased the sample, it should be kept in mind that it is not warranted to conclude that changes in central bank legislation occur only as part of major central bank reforms.

TABLE 9. Degree of reforms

Mean	Median	Min	Max	Std.
0.315	0.310	-0.350	0.780	0.195

The maximum value of 0.78 points is, of course, only possible if the country scored a fairly low CBI value prior to the reform, which was the case with the relevant country, Indonesia. More interestingly is the minimum value since it is a negative number. While -0.35 might be a moderate outlier in this sample, it is still a plausible value. Leaving the discussed historical developments aside, there is no reason why the degree of independence should *always* increase. The respective country is Belarus and it is the only country that scored lower on the CBI scale than in the pre-reform period.

The numbers in Table 10 show a clear relationship between economic crises and central bank reforms. 77.1 percent—more than three quarters—of all central bank reforms are associated with either a currency, a banking or an inflation crisis. 60.7 percent of the countries that decided to reform their central bank experienced high inflation in at least one in the three years up to the implementation.

Around a fifth of the countries that changed their central bank legislation substantially experienced very high inflation rates of over 100 percent. Since central banks are the main economic institutions responsible for price stability, reforming them in case of inflation crises is an obvious choice. The data show that this assumed association not only is confirmed empirically, but also that the relationship between inflation crises and central bank reforms is very strong.

TABLE 10. Countries that experienced a certain type of economic crisis in the three years prior to the reform

Currency crisis	26	42.6%
Banking crisis	23	37.7%
High inflation (CPI > 10%)	37	60.7%
Very high inflation (CPI >100%)	11	18.0%
Any of the above	47	77.1%

There also seems to be a fairly strong association between banking crises and currency crises on the one hand and central bank reforms on the other hand. 42.6 percent of the reforms followed a currency crisis, and 37.7 percent of the reforms were implemented after a banking crisis occurred in the three years prior to the reform.

While inflation crises reflect a central bank's failure to keep the domestic price level constant, currency crises imply a strong loss in a currency's external value. Furthermore, banking crises indicate that a central bank failed to deliver on financial

stability. This should not mean that the presence of one type of the mentioned crises is always the central bank's fault. In fact, there are many reasons crises could occur without the central bank being directly responsible. Still, it is rather obvious that the institutional setting with regard to monetary and financial matters has to be changed in cases of apparent failure.

3.2.2. Regression model

Since no assumption required for ordinary least squares (OLS) regression is violated,¹⁰ it is appropriate to use this technique. Based on the consideration in the previous sections of this chapter, the following linear regression model is specified:

$$(1) Y = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon$$

where Y is the post-reform CBI value, x_1 is a dummy variable specifying whether an inflation, currency, or banking crisis occurred in the three years up to the reform enactment, x_2 is a dummy variable for left-wing governments, x_3 is a dummy variable for governments that have reached the end of their terms in office, x_4 is a control variable that captures the initial level of CBI, and ε is the error term. The other regression models pictured in Table 11 were calculated accordingly. Data for the control variables on trade openness and level of income come from Bodea and Higashijima (2015). The level of democracy is operationalized by Polity scores from the same source.

3.2.3. Regression results

Table 11 provides the results of five OLS regressions models. Across all models, two variables are significant. First, left-wing governments tend to implement stronger reforms. This is in line with hypothesis H2, which states that they face a credibility deficit because of their ideology since left-wing parties are assumed to place more weight on fighting unemployment than on price stability, while right-wing governments are usually thought of as being committed to the opposite. To counteract this perception, left-wing governments are likely to commit themselves to sound monetary policy by establishing independent central banks. The effect is quite strong. Reforms implemented by left-wing governments increase the post-reform degree of independence by about 0.09 points on the CBI scale ranging from 0.0 to 1.0, compared to reforms that were undertaken by non-left-wing government.

The second variable that is statistically significant in all five models is the dummy for reforms implemented by governments whose terms of office end either in the year the reform was implemented or in the following year. The size of the effect is comparable to

10 Tests for heteroscedasticity and multicollinearity were conducted. Neither heteroscedasticity nor multicollinearity was detected.

the one of left-wing governments and also quite strong. Reforms that were implemented by executives whose terms of office ended increase the post-reform CBI score by roughly 0.09 points. This provides indication for the “tying-the-hands” hypothesis, i.e., that governments want to limit the their successors' room for maneuverability.

TABLE 11. OLS Regression Results

(Dependent Variable: Post-reform central bank independence)

	I	II	III	IV	V
Constant	0.55 *** (0.06)	0.64 *** (0.03)	0.57 ***	0.60 *** (0.06)	0.53 *** (0.06)
Crisis	0.02 (0.04)			-0.00 (0.04)	
Left-wing government	0.10 * (0.04)	0.10 * (0.04)	0.09 * (0.04)	0.09 * (0.04)	0.09 * (0.04)
Executive at the end of its term	0.09 * (0.04)	0.09 * (0.04)	0.09 * (0.03)		0.08 * (0.04)
Initial level of CBI	0.20 (0.11)		0.21 (0.12)	0.19 (0.11)	0.21 (0.11)
Trade openness			-0.00 (0.00)		
High-income country			-.0.00 (0.05)		
New executive				-0.03 (0.04)	
Level of democracy ¹¹					0.00 (0.00)
R ²	0.22	0.17	0.23	0.17	0.22
Adjusted R ²	0.16	0.13	0.16	0.11	0.17

Standard errors in parenthesis / * P < 0.05, ** P < 0.01, *** P < 0.001.

However, the variable does not capture whether a government actually left office after the end of the term. This makes sense especially with regard to democracies, where incumbent parties cannot know for sure whether or not they would be reelected. Hypothesis H3 was

¹¹ The level of democracy is operationalized by Polity scores, which range from -10 to 10, with higher scores indicating a higher level of democracy. The model was also calculated with a binary dummy variable based on negative or positive Polity scores. It did not change the results.

explicitly formulated with regard to this uncertainty that politicians have to take into account in their calculations on costs and benefits of policy delegation. The results indicate that the effect is not dependent on the political system. Controlling for level of democracy does not alter the results, as model V demonstrates. The competing hypothesis—that reforms are stronger in the early stages of a term of office—was considered in model IV, but remained statistically insignificant.

Furthermore, the regression models do not confirm hypothesis H1. While the previous section showed a clear association between crises and central bank reforms, there seems to be no relationship between the presence of a crisis and the *degree* of change in central bank legislation. It can be concluded that crises might increase the salience of central bank legislation, but do not predict anything as regards the content of the reform.

The initial degree of autonomy a central bank enjoys also remained insignificant in all five models. The same goes for the two economic variables in model III. A country's trade openness does not seem to be related to the degree of its central bank reform. While the concept of CBI is often portrayed as a necessary response to globalization, these results raise doubts over its importance with regard to the degree of autonomy. Countries that are dependent on international trade are not more likely to implement more ambitious central bank reforms than countries with less exposure to trade.

Note that this does not imply that globalization plays no role whatsoever. It is perfectly possible that countries establish independent central banks in order to become more attractive to foreign investors. However, the degree of autonomy these countries choose seems to be unrelated. The same conclusion can be reached with regard to economic development, which was considered in model V with a dummy variable for high-income countries.¹²

12 Models with dummy variables for other income groups were also estimated, but are not reported here. No statistically significant relationship was found.

4. CASE STUDIES

4.1. Case studies as an useful complement to statistical analyses

While the statistical analysis provided useful insights, a pure quantitative approach necessarily has to have blind spots in analyzing reasons for implementing reforms. Regression analyses do detect meaningful statistical relationships, but causality always has to be deduced from theory. While this is perfectly legitimate, the approach has its limitations when it comes to assessing the exact mechanisms of causality. Hence, additional information might be useful. A case study approach allows one to take a closer look at specific reforms and, therefore, helps one reach a better understanding of the mechanisms of delegation.

In the concrete case of this thesis, a case study approach is capable of providing additional information with regard to all three hypotheses. Especially in the case of H3, the advantages of this approach become apparent. The statistical analysis provided strong indication that the timing of central bank reform is related to the degree of the reform, in the sense that executives that are at the end of their terms opt for more radical central bank reforms. It was theorized that this effect can be explained by the uncertainty of staying in power, to which isolation of policy decisions by delegation is a rational response. Taking a closer look at specific reforms might confirm this hypothesis for some cases and point to alternative explanations in other cases. The statistical analysis, on the other hand, cannot provide additional information beyond the relationship that is detected.

But the usefulness of the case study approach is in no way limited to H3. It can provide additional information with regard to the other hypotheses as well. The statistical analysis indicated that economic crises and central bank reforms are closely related. The theoretical explanation proposed in this thesis was that the crisis is an exogenous shock for the current institutional setting and the need for change becomes apparent. A more detailed analysis of specific reforms can provide a deeper understanding of how the mechanism between crises and institutional change actually works. The same goes for the relationship between more radical central bank reforms and left-wing governments, which was explained by the credibility deficit that left-wing parties face.

4.2. Case selection

The cases discussed in the following section are central bank reforms in the United Kingdom, Italy, Japan and China. All four central banks are among the world's most relevant ones, but more importantly, their countries provide the high political and economic variance that is necessary for this study. The selected countries and reforms differ with regard to their political and party systems, economic development and membership in a currency union. Two cases are taken from Europe, with Italy being a euro zone country, and the United Kingdom not being a member of the European currency union. Euro zone membership is considered a relevant variable since an independent central bank is a legal prerequisite to join the currency area.

Both countries are liberal democracies, but they differ with regard to their party systems. The United Kingdom has a system with two relevant parties, where usually no coalition government is needed, and very few changes in government in the 1980s and 1990s—namely, one. Italy, on the other hand, had a high number of relevant parties in the relevant time period, not only in parliament but also within the government coalition. Furthermore, Italy experienced a very high number of changes in government.

Japan, on the other hand, is also a liberal democracy, but unlike Italy and the United Kingdom, there was only one relevant party for decades. While the leadership of the main party and the prime ministers did change from time to time, the party in power remained the same until the 1990s. It can be concluded that Italy experienced high party competition, the United Kingdom rather low party competition, and Japan extraordinarily low party competition. The same can be observed for changes in government. Italy experienced many changes in government, whereas in the United Kingdom the ruling party changed about once in a decade. In Japan, the dominant party lost power only for a short period in the decades prior to the central bank reform.

However, the cases studied should not be limited to liberal democracies. For that reason, China is included. In contrast to the other three countries, party competition plays no role whatsoever. Changes in government occur only insofar as the Communist Party of China (CPC) changes its leadership and, accordingly, the state's executive. Since there are no elections, China also provides a counterexample to the other three countries in this respect.

The countries also differ economically. The United Kingdom is a classical example of an Anglo-Saxon capitalist economy, while in Italy the state traditionally plays a big role in the economy. Japan is also a market economy with very high state involvement. All

three of them are industrialized and highly developed countries. China, on the other hand, is a developing country and also a transition country. Since the onset of economic reforms in the late 1970s, the country is in a transformation process from a socialist planned economy to a more market-based economy with private ownership, even though China officially still considers itself as socialist. While geographic aspects are not expected to play a big role when it comes to central bank reforms, one of the reasons for selecting Japan was to analyze a non-Western developed country with a democratic political system.

4.3. Reform of the Bank of England

The Bank of England (BOE) is one of the oldest and, until today, one of the most important central banks in the world. Legally, it remained a relatively dependent central bank until a newly elected Labour government granted independence to the BOE in 1997. Despite the fact that independent central banks are considered to favor conservative economic policies, the Tory governments from 1979 to 1996 did not change the institutional status of the BOE.

4.3.1. Historical context

The BOE was founded in 1694 and is one of the oldest central banks in the world. It remained a privately owned institution until 1946, when a Labour government nationalized the BOE. In the first half of the twentieth century, the BOE was considered the most important central bank in the world. In the post-war period, its importance diminished as the U.S. Federal Reserve became more relevant due to the Bretton Woods currency regime. Still, the BOE remained among the world's most important central banks. Institutionally, the BOE was left unchanged for decades. From a comparative perspective, the BOE was considered a highly dependent central bank since the Chancellor of the Exchequer decided on interest rates and the central bank was limited to an advisory position.

After the demise of Bretton Woods and in the short time period in which the United Kingdom was part of the European Economic Community (EEC) snake, the British pound was a free-floating currency from 1972 onward. Monetary policy was up to the discretion of the Chancellor. Those years were marked by monetary instability, culminating in a currency crisis in 1976. As a consequence of the crisis, the Labour government had to request a loan from the IMF. The IMF approved the request, but the British government had to commit itself to several reforms including fiscal tightening. In the same year, BOE

governor Gordon Richardson persuaded Prime Minister Denis Healey to adopt a new monetary strategy: the targeting of monetary growth rates (Elgie and Thompson 1998, 61). Monetary targeting was one of the main prescriptions of the monetarist school of thought that gained academic prominence after the stagflation of the 1970s and the failure of the then-dominant paradigms to cope with high inflation rates (Houben 2000, 141). Despite the Keynesian orientation of the Labour government, the United Kingdom was among the first countries committed to monetary targeting (Houben 2000, 144).

After Labour's apparent failure to handle the ongoing economic crisis, the Conservative Party won the elections in 1979, and Margaret Thatcher became prime minister. Thatcher publicly committed herself to bring down inflation and relied on monetarism to achieve this goal. In 1980, her government introduced the Medium-Term Financial Strategy, which was based on monetarist prescriptions. According to Houben (2000, 144) this marked "the true advent of monetary targeting in the United Kingdom."

The BOE, however, proved to be unsuccessful in reaching the monetary targets. The Tory government had to redraft its monetary policy strategy. As a result, monetary targets were raised in 1982, which implies an easing of monetary policy, since lower amounts of monetary growth are associated with lower inflation. Accordingly, lower interest rates were allowed which stimulated the economy. Elgie and Thompson (1998, 63) refer to this measure as the "abandonment of monetarism." King (2005, 101) links the monetary easing to the 1983 elections. While it is not possible to prove this rationale, the Conservative Party did indeed secure reelection. In the following years, inflation was brought down successfully, which led the government to adopt a more expansive stance, both in fiscal and monetary policy. Again, many observers argue this policy change made it possible for the Conservatives to win reelection for the third time in 1987 (Bernhard 2002, 141; King 2005, 101; Elgie and Thompson 1998, 65).

Chancellor Lawson, however, resigned in October 1989 after interest rates were raised and the economy tumbled. This episode illustrated how the blame for unsuccessful monetary policy was aimed at the Chancellor and not on the BOE. In his resignation speech, Lawson said he had presented a fully worked-out plan for BOE reform based on the CBI concept to Prime Minister Thatcher in 1988, but she had rejected it. In the years up to his resignation, Lawson also had advocated British participation in the European Monetary System (EMS). While most other party leaders agreed with his stance, Thatcher did not approve. She and her allies argued that the United Kingdom (UK) would lose

policymaking autonomy to Germany and did not accept the proponents' claim that EMS membership would increase macroeconomic discipline (Bernhard 2002, 142).

However, as King (2005, 102) argues, Thatcher's reasons for opposing CBI were driven by politics, not by economics. Thatcher argued that delegation of monetary policy would be seen as failure of the government to fight inflation. But strategic reasons were also at play. Some sources say that Thatcher reasoned that an independent central bank would decrease the electorate's fear of a Labour government (Dellepiani-Allevaneda 2013, 280).

While the Tories were fierce supporters of monetarism and Labour's decision to adopt monetary targets was rather half-hearted, the idea of tying the hands of future governments played no role in Thatcher's thinking. According to Lawson, Thatcher did not even think of the possibility that the Conservative Party could lose elections and Labour might end up in power again (King 2005, 102). But more important than monetary policy considerations was the fact that the British society was highly dependent on mortgages with flexible interests rates. In consequence, interest rate decisions were directly relevant to millions of British mortgage holders. Thatcher was aware of this fact, as she had herself stated in her autobiography (Thatcher 1993, 698).

While Thatcher did not change her mind on BOE reform, she gave in on another front. In October 1990, she was convinced by her newly appointed Chancellor John Major to join the European Exchange Rate Mechanism (ERM). Britain did so at a rate of 2.95 German mark to the pound sterling, which turned out to be unfavorable. Many economists argued that this rate was higher than justified (Bernhard 2002, 142). Two years ahead of the election in April 1992, Thatcher came more and more under pressure in her own party, and eventually lost the party's backing in November 1990. Major succeeded her as prime minister, Norman Lamont became the new chancellor.

Surprisingly to most observers, the Conservative Party won the 1992 elections and stayed in power. Only a few months after their victory, however, a currency crisis shook the country. The UK was forced to leave the ERM in September 1992 as it could not withstand massive speculation against the pound sterling. German unification had pushed up interest rates in Germany, and the UK had to follow to keep up the fixed exchange rate. Attempts by both Prime Minister Major and chancellor Lamont to convince the German Bundesbank to cut rates proved unsuccessful (Bernhard 2002, 142).

Soon after the UK's departure from the ERM, chancellor Lamont pushed for BOE reform toward independence. At the same time, Lamont announced a medium-term

inflation target. While Lamont considered reforming the central bank necessary to re-establish Britain's credibility on the financial markets, Major was not convinced and rejected the proposals on the basis of internal party politics (Bernhard 2002, 143). He argued that the Eurosceptic wing of the Conservative Party would see a BOE reform as a first step toward compliance with the Maastricht Treaty and a membership in the EMU (King 2005, 104). Lamont left office in June 1993 and, like his predecessor, used his resignation speech to call for a reform of the BOE.

Since this was the second time in only a few years that a resigning chancellor demanded for more central bank autonomy in monetary policymaking, a public debate on the BOE's status was triggered. As a consequence, the Commons Select Committee on the Treasury began hearings on the topic of BOE reform (Bernhard 2002, 143). Further support for the idea of an independent BOE came from a report by the Centre for Economic Policy Research, the so-called Roll Report, which was authored by several prominent economists and "a group of City bankers" (King 2005, 106). The new BOE governor Eddie George also favored increasing the bank's autonomy.

The Commons Select Committee published a final report in December 1993 and called for an independent BOE comparable to the Reserve Bank of New Zealand that was reformed some years earlier. This included the government setting an inflation target and the BOE having instrument independence to reach this target. To make sure the BOE did not become unaccountable, the governor would have to answer questions to parliament regularly, and the House of Commons would have to approve the inflation target (Bernhard 2002, 144).

Even though the suggestions in the report were neither radical nor very different from what other countries had already implemented, the report was not supported in parliament. The Conservative Party and its Prime Minister Major rejected the proposal. The Labour party, as the main opposition party, was not convinced either. However, one member of the committee, Tory Member of Parliament Nicholas Budgen, brought the report into parliament anyway. It failed to secure a majority and was opposed by the leadership of both parties. Only the relatively minor Liberal Democrats were in favor of the bill (Bernhard 2002, 144–145).

While the BOE's institutional status remained unchanged, it did become more outspoken on economic policy issues and, in specific, in its criticism of the government. The new BOE governor Eddie George, who was appointed in January 1993, was considered hawkish, i.e., putting relatively more weight on fighting inflation than fighting

unemployment. At the same time, the new chancellor, Kenneth Clarke, increased the transparency of monetary policy decisions by deciding that minutes of the monthly meetings between the BOE and the Treasury would be published with a six-week delay. Furthermore, the BOE did not have to submit its Inflation Report to the Treasury before publishing it.

In the years following this decision, the BOE and the Treasury had several differences of opinion on whether to raise interest rates or not. For instance, Clarke reluctantly supported interest rate hikes in December 1994 and again in February 1995. The BOE argued those hikes were necessary because the economy was in danger of overheating, which raised inflationary pressure. But Clarke was worried that further interest hikes would decrease the Conservative Party's approval ratings, which were already declining. As a consequence, Clarke refused to hike rates for the first time in May 1995 and continued to do so throughout the summer. The differences of opinion between Clarke and BOE governor George were discussed publicly. The press dubbed it "The Ken and Eddie Show" (Bernhard 2002, 146).

The disagreements went on, with Clarke cutting interest rates in December 1995 and January 1996. After inflation did accelerate in fall 1996, Clarke raised rates by 25 basis points in October 1996. From December 1996 to March 1997, however, Clarke again did not follow the BOE's advice and refrained from raising rates. The chancellor pointed out that the pound sterling had appreciated on the foreign exchange market, which would dampen potential inflation (Bernhard 2002, 146).

4.3.2. The 1997 reform and its triggers

Clarke's attempts to keep the economy going were not enough for the Conservative Party to win the elections in 1997. After nearly two decades, the Labour party took office again. Labour's campaign did not involve an explicit commitment to CBI, but called for BOE reform. After the elections, however, the new chancellor Gordon Brown announced that the Labour government was giving the BOE the sole right to set interest rates. This was widely perceived as a surprise decision (Dellepiani-Allevaneda 2013, 263).

In the new framework, the government would announce an inflation target, but the BOE was free in choosing the means to achieve the target. Monetary policy decision would be undertaken by a monetary policy committee, which would consist of nine members, including the governor. The BOE would report to the House of Commons via the Treasury

Select Committee (Bernhard 2002, 148). The newly elected Prime Minister Tony Blair argued the reform was “the biggest decision in economic policy-making since the war” (Dellepiani-Allevedana 2013, 263).

Brown’s reform dates back to December 1992, when a Labour politician—who later on became his main economic advisor, Ed Balls—published a pamphlet which rejected monetarism and proposed an alternative way of achieving macroeconomic stability. The paper explicitly argued that delegation of monetary policy would increase the credibility of a future chancellor (Patel 2008, 33). Balls became Brown’s advisor on economic issues in 1994 and, together, they reworked Balls’ paper in 1995. King (2005, 108) argues that the pamphlet “effectively became New Labour’s economic policy manifesto” for the elections in 1997. It included granting the BOE independence.

Just a day after the elections were won by New Labour, the new Prime Minister Tony Blair approved a proposal by Brown to reform the BOE. A team from the British Treasury worked out the details over one weekend. Brown presented the results to BOE governor George on the following Monday, which was a bank holiday. The degree of the proposed reform surprised the BOE staff; even the fact that a reform plan was presented was unexpected by the central bankers (King 2005, 108).

Brown justified the reform by removing the politicization of interest rates, which fitted into a broader trend of what Burnham (2001, 128) calls “politics of depoliticisation.” Brown also pointed out that the new monetary policy committee would make sure that the diverse nature of Britain’s economy was taken fully into consideration. The reform was welcomed by the financial press and investors. After the announcement, the pound sterling appreciated, the British stock market rose and bond yields fell (Chadha, Macmillan and Nolan 2007). Since lower bond yields equal lower refinancing costs, the initial reaction on the financial markets can be interpreted as improving the UK’s fiscal space. Reactions from the British businesses were favorable as well (Bernhard 2002, 149).

There were also critical voices, especially from the Labour Party’s left wing, which perceived the reform as a present to financial markets and a betrayal of socialist values. One member of Parliament even asked, “Why do not we simply sub-contract the entire economy to Goldman Sachs?” (Bernhard 2002, 150). At the same time, the dissenting voices remained “relatively powerless,” as King (2005, 112) argues, referring to the British political system that concentrates power in the hands of the prime minister and the cabinet.

The BOE reform was perceived as being somehow unconventional, since it was implemented by a left-wing party, which is not in accordance with standard partisan

expectations of monetary policy. Furthermore, it did not follow an economic crisis. While the UK underwent a major currency crisis in September 1992 when it was forced to exit the ERM, the BOE's institutional position remained largely unchanged. Despite several attempts from cabinet members to reform the BOE, it took a change of government until a reform was actually implemented. After New Labour won the 1997 elections, a reform plan was drafted within days. In the terminology of RCI, a changed actor constellation led to a different policy outcome.

The Labour Party aimed to increase its credibility, but less on the financial markets than among the electorate. King (2004, 115) argues that the reform was designed to “win the support of homeowners that represent the median voter in the British context”. Historically, the Labour Party had a reputation for being the party of currency devaluation, since all three periods in which the party was in power saw currency crises. However, at least since the UK's forced exit from the ERM, the Conservative Party did not have the best results either. New Labour realized it had to signal things had changed since the 1970s, when the party was voted out of office two years after a Labour government had to rely on an IMF loan. Shadow chancellor Brown tried to picture the Tories as a party of monetary instability during the election campaign.

Especially since the Conservative Party subscribed to monetarism quite early, it is somewhat surprising that the party never committed to CBI. As Dellepiani-Allevaneda (2013, 282) puts it: “The Conservatives enforced the monetarist paradigm in Britain, but ironically failed to deliver one of its flagship institutions.” While formal central bank legislation remained unchanged during the years of Tory reign, the actual autonomy and policy capacity were even reduced. The Conservative Party considered monetary policy as being “too important to be left to central bankers” (Quaglia 2008, 19).

The Tories supported monetarism early on, but they never took its prescriptions fully seriously. Rather than following a program for monetary stability, the Tories engaged several times in manipulating the economy by the means of monetary policy for strategic reasons. As a consequence, they failed to deliver monetary stability. Against this background, it comes as no surprise that BOE official Charles Bean (2008, 172) points out that it was less the power of ideas which led to the United Kingdom's adoption of CBI, but rather the relatively better performance by countries with independent central banks such as Germany and the United States.

4.3.3. Discussion

After reviewing the British case, it can be concluded that a financial crisis did not play a role in its central bank reform. While the three periods up to the reforms were marked by monetary instability and currency crises occurred repeatedly, these never triggered a delegation of decision-making power in monetary policy. Those crises did not leave the institutional monetary setting unchanged either. The 1976 currency crises led to the adoption of monetary targets, and the involuntary exit from the EMS in 1992 played a role in the decision to provide more transparency and accountability by adopting an inflation target and publishing minutes of meetings between the BOE and the Treasury. But the decision to delegate monetary policy to an independent BOE was never made, despite several efforts by high-ranking policymakers such as Chancellors Lawson and Lamont. Strategic considerations toward electability prevented it.

A changed actor constellation was necessary to implement a reform. Departing from standard partisan expectations, the change in government preceding the reform was to the left. This is in line with the proposed hypothesis that left-wing governments are more likely to implement far-reaching central bank reforms in order to counteract a credibility deficit rooted in its ideology. The Labour Party primarily tried to signal economic credibility to the electorate, especially mortgage holders. At the same time, international investors' concerns about a Labour government were cooled off.

Using the framework of Müller and Strøm (1999), it can be argued that the Labour Party's decision was less a policy decision than a vote-seeking decision. CBI is not a left-wing concept, and delegating monetary policy usually limits the room of maneuverability for left-wing economic policy. But by signaling credibility to an important segment of the electorate, namely mortgage holders, the Labour Party expected to benefit at the ballot box. The reform was also not an office-seeking decision, as it was not presented during the election campaign.

4.4. Reform of the Banca d'Italia

The foundation of the Banca d'Italia dates back to 1893. For the most time throughout its history, it had a reputation of being a dependent central bank. The first step for a change was set in the early 1980s with the so-called "divorce," which freed the Banca d'Italia from buying government bonds that remained unsold at auctions. However, the "divorce" did not constitute a formal institutional change. Central bank legislation remained unchanged

until 1992, when the Banca d'Italia gained formal independence as a response to the Maastricht Treaty which made CBI a prerequisite for joining the EMU.

4.4.1. Historical context

Italy maintained its currency, the lira, until it joined the euro zone. While the lira had a reputation of being a notoriously unstable currency, with recurring devaluations of its external value and high inflation rates in Italy, this problem actually did not occur in the post-war period until the late 1960s. In the 1950s and large parts of the 1960s, Italy, in fact, experienced high economic growth and low inflation. Monetary policy was hardly expansionary, the monetary base tended to decline until the end of the 1960s. During the 1950s, the Banca d'Italia central bank followed a largely non-interventionist course and did not use open market operations at all. Furthermore, it changed the official discount rate and reserve requirement ratios only once (Fratianni and Spinelli 1997, 196).

Things began to change in the 1960s. The monetary stance followed by the Banca d'Italia became more activist. The central bank's main priority was to keep its international reserves at a constant level (Fratianni and Spinelli 1997, 204). Being a member of the Bretton Woods fixed exchange rates system, this priority led to balance-of-payment crises during the 1960s. While those crises were certainly unpleasant, initially they did not affect inflation.

In the following decade, however, inflation got out of hand. Fratianni and Spinelli (1997, 212) argue that the main reason for the instability of prices was that the Banca d'Italia financed the government's budget deficits to an unprecedented degree. While deficits had been low during the two decades prior to the 1970s, government spending strongly increased in the early 1970s. From 1970 to 1981, social welfare expenditures rose in real terms at an annual rate of 4.6 percent (Epstein and Schor 1989, 152).

The whole decade was marked by high economic instability. The Banca d'Italia tried several times to stabilize the lira but failed to achieve sustainable success. For instance, in 1972, Italy joined the EEC snake as a founding member. The membership in this fixed exchange rate system forced the central bank to engage in at least some kind of stabilization policies. But domestic policy considerations led to an exit from the snake as soon as in early 1973 (Houben 2000, 218).

An ambivalent change in rules occurred in 1975, when a secondary market for government bonds was established. This allowed the Banca d'Italia to sell government

bonds and thereby counteract monetary growth resulting from government financing. On the other hand, it was obligated to buy any government bonds that were not sold at bond auctions (Bernhard 2002, 130). By legally forcing the central bank to buy treasuries it could not sell, the Italian government was de facto unconstrained in its spending. After all, there was no limit to the number of bonds the Italian government could issue.

As a result of the currency woes in the 1970s, Italy had to rely on IMF programs twice, in 1973 and in 1976. Both loans were dependent on certain reforms, but the second package was much stricter (Bernhard 2002, 131). In 1979, Italy made another attempt at stabilization and joined the EMS. To avoid another involuntary exit, Italy's threshold for intervention was higher than the ones other member countries used, i.e., the lira was allowed to have greater divergences from the base value than other currencies (Houben 2000, 218).

In 1981, another important step toward CBI was taken by the so-called "divorce," which came into effect in July of the same year. This term refers to an agreement between the Banca d'Italia and the Treasury, which freed the central bank of the obligation to buy any government bonds that found no buyer at auctions (Passacantando 1996, 88; Epstein and Schor 1989). This measure was meant to limit excessive monetary growth and, in further consequence, high inflation rates. However, the "divorce" did not lead to any formal change in legislation. The persons involved portrayed it as a "technical reform." According to Treasury minister Nino Andreatta, who initiated the reform, it was born as an "open plot" between him and the central bank governor. He referred to the "divorce" as a "fait accompli" (Quaglia 2008, 77). One of the central motives behind the initiation of the reform was that Italy's EMS membership was in danger again. The reform was a caesura in Italy's economic policymaking since it abolished the government's de facto unconstrained spending abilities.

Despite these far-reaching consequences, it was not discussed extensively in the political sphere. Italy's political parties faced accomplished facts. But they did not complain anyway. In fact, not even the Partito Comunista Italiano (PCI) criticized the decision. Epstein and Schor (1989, 160) argue that there were two reasons for the PCI to support the step toward CBI. First, the Banca d'Italia was quite open to PCI demands and its Keynesian approach was compatible with the PCI's economic goals. The Banca d'Italia was seen as bulwark against the Democrazia Cristiana (DC) party's use of the state for its political goals. Second, the PCI might have tried to portray itself as a "respectable" and responsible party. Both points are confirmed by Quaglia (2005, 560).

Since no major political debate preceded the “divorce”, partisan consideration seemed to play no role at first sight. However, Bernhard (1998, 323) links the reform to the changed role of the DC within the political system. The DC dominated Italy’s political system for decades. It usually ruled the country in a government coalition with the Socialist Party (PS) but increasingly faced challenges after the multiple economic crises in the 1970s. The PCI, which led the opposition, won approval and put additional pressure on the DC. Bernhard argues that the “divorce” and other pro-market reforms implemented in the 1980s were a response to the DC’s challenged position within the political system. Even though initially no party criticized the “divorce,” this changed when its effects became apparent. Epstein and Schor (1989, 161) mention opposition from the Partito Socialista Italiano (PSI) and some sections of the PCI based on the perception that interest rates went up too much after the “divorce”.

The “divorce” did not, however, change everything immediately. In 1982, the Banca d’Italia, for the first time, refused to buy unsold government bonds. As a reaction, the Treasury had to withdraw the maximum amount of 14 percent from its account at the central bank. Furthermore, it had to ask the parliament for extension of its overdraft facility. The parliamentarians approved quickly, since the alternative was a major fiscal crisis (Quaglia 2008, 77; Cobham, Cosci, and Mattesini 2008, 263). This episode illustrates that while the central bank was not obliged to buy unsold bonds anymore, in reality things proved to be more difficult. However, in 1983, the share of total government debt financed via money creation fell drastically, indicating a change in course (Epstein and Schor 1989, 161).

The “divorce” was implemented at the beginning of decade that saw a general trend toward market liberalization in Italy. Between 1988 and 1989, floor prices for government bonds at Treasury auctions were abolished. Furthermore, the secondary market for government securities and the money market were reformed (Cobham, Cosci, and Mattesini 2008, 263). Compulsory reserve requirements and the payment system were also changed (Gobbi 1996, 69–73). Quaglia (2008, 78) argues that financial liberalization was driven in part by Italy’s membership of the EU, since EU directives on banking and free movement of capital had to be followed. At the same time, these directives made it easier for market-oriented political actors to push through pro-market reforms.

4.4.2. The 1992 reform and its triggers

While the early 1980s saw a reform of the financial system and a changing role of the Italian central bank, its position remained formally unchanged. Formal independence followed in the early 1990s. The reform consisted of two steps. In 1992, the Banca d'Italia was granted the exclusive right to set interest rates without approval from the Treasury. In 1993, the overdraft facility was replaced by an interest-bearing deposit account, which must always be in credit. Both measures passed parliament in 1992—the former in January and the latter in November.

As Quaglia (2008, 78) points out, the formal changes followed informally changed practices that preceded the reforms. The overdraft account had not been used since the late 1980s and the Treasury had never vetoed the proposed interest rate changes by the central bank. This is in line with the assessment by Cobham, Cosci, and Mattesini (2008, 264) that informal independence—that is, actual central bank behavior as opposed to formal legislation—had increased significantly during the 1980s and in the early 1990s.

Still, changing practices can be reverted, and they certainly do not satisfy the requirements for the EMU. After the Maastricht Treaty was passed in 1992, it was clear that an independent central bank would be a prerequisite for joining the EMU. Therefore, countries without independent central banks faced two options, either changing the respective legislation or sticking with the national currency. Italy opted for the former, which came as no surprise, since the foundation for the central bank reforms were already laid in the 1980s.

According to Woolley (1992, 169), Italian officials viewed the country's EMS membership as an important driver for creating conditions necessary for economic growth and a further integration with other European economies. Conversely, the reforms of the 1980s were seen as necessary to increase the country's credibility. Quaglia (2004, 1102) points out that a majority of economic experts in Italy supported Italy's membership of the EMU.

While CBI is generally viewed as a mean to improve a country's monetary performance, the Banca d'Italia achieved respectable success in stabilizing inflation in the years prior to the reform, as Table 12 demonstrates. As Walsh (1999, 68–69) points out, monetary adjustment in Italy took place successfully in the years between 1988 and 1991, while fiscal adjustment was delayed until the period between 1991 and 1997. In the period of monetary adjustment, inflation was brought down from the two-digit area to around five percent. The adjustment process also proved to be successful in terms of the lira's external

value with only one smaller devaluation in the early 1990s. The devaluation was accompanied by narrowing the Lira's ERM fluctuation band from +/- 6 percent to +/- 2,25 percent (Walsh 1999, 69).

TABLE 12. Inflation rates in Italy 1980–1984 (year-on-year, as measured by the CPI)

1980	21.3	
1981	17.8	“Divorce”
1982	16.4	
1983	14.6	
1984	10.8	
1985	9.2	
1986	5.8	
1987	4.7	
1988	5.1	
1989	6.2	
1990	6.5	
1991	6.3	
1992	5.1	Central bank reform enacted
1993	4.5	
1994	4.0	

Source: World Bank database

However, the reform of the Banca d'Italia was passed at a time of high economic uncertainty. Italy's involuntary exit from the ERM happened in the same year the reform was passed. Still, the relationship between the two events is indirect. The reform was no response to Italy's forced exit from the ERM, but rather to the Maastricht Treaty which made an independent central bank a prerequisite for participation in the monetary union (Passacantando 1996, 85; Sarcinelli 1995, 398–399).

But the membership in the EMU was viewed as a necessary step to make Italy more competitive and integrated into Europe's economy. This, in turn, should make the Italian economy more resilient against currency crisis, such as the 1992 ERM exit. In the light of the long history of monetary instability in Italy, the decision to participate in the EMU could indeed be interpreted as a response to recurring currency crises.

The reform also coincided with a major political crisis. The constellation that dominated Italy's politics in the post-war decades became fragile. The DC as well as the

PSI faced internal problems, which erupted when the alliance failed to get two presidential candidates elected in 1992.

The two reform steps toward the Banca d'Italia's full independence were undertaken by two different governments which, nevertheless, consisted of the same parties. The change in legislation that granted the central bank instrumental independence was passed by the Andreotti VII government. This cabinet was in power from April 1991 to June 1992 and left office before Italy's departure from the ERM. Apart from DC and PSI, the governing coalition consisted of the Partito Socialista Democratico Italiano (PSDI) and the Partito Liberale Italiano (PLI).

TABLE 13. Composition and duration of Italian governments 1980–1994

Government	Parties in government	Period in office	Duration
Forlani	DC-PSI-PSDI-PRI	Sept 1980–Jul 1981	10
Spadolini I	DC-PSI-PSDI-PRI-PLI	Jul 1981–Aug 1982	13
Spadolini II	DC-PSI-PSDI-PRI-PLI	Aug 1982–Dec 1982	4
Fanfani V	DC-PSI-PSDI-PLI	Dec 1982–Aug 1983	8
Craxi I	DC-PSI-PSDI-PRI-PLI	Aug 1983–Aug 1986	37
Craxi II	DC-PSI-PSDI-PRI-PLI	Aug 1986–Apr 1987	8
Fanfani VI	DC	Apr 1987–Jun 1987	3
Goria	DC-PSI-PSDI-PRI-PLI	Jul 1987–Apr 1988	10
De Mita	DC-PSI-PSDI-PRI-PLI	Apr 1988–Aug 1989	17
Andreotti VI	DC-PSI-PSDI-PRI-PLI	Aug 1989–Apr 1991	21
Andreotti VII	DC-PSI-PSDI-PLI	Apr 1991–Jun 1992	15
Amato	DC-PSI-PSDI-PLI	Jun 1992–Apr 1993	11
Ciampi	DC-PLI-PSDI-PSI-PDS	Apr 1993–May 1994	13

Source: Walsh (1999, 70) / Duration in months

In June 1992, a new government coalition was formed. It involved the same parties, but was led by Giuliano Amato, instead of Giulio Andreotti. Amato was considered the right hand of long-time Socialist leader Bettino Craxi (Berselli 2001, 18), who was involved in a major corruption scandal at that time. As early as July 1992—one month after taking office—the government achieved to abolish the wage-indexing system, which was often considered a major source of high inflation rates by reinforcing a price/wage spiral (Maes and Quaglia 2003, 14). In December 1992, the coalition passed the second part of the CBI

reform. The Amato government was replaced in April 1993 by a technocratic government led by former Banca d'Italia governor Carlo Ciampi.

According to Berselli (2001, 18), both the Amato and the Ciampi government were “characterized not by any distinctive political features but by their technical content.” He argues that the focus on technical issues was founded in the parties’ involvement in corruption scandals, which made it hard for them to engage in political debate. In 1993, an electoral reform was passed and, as a consequence, a majority voting system was implemented. The 1994 elections ended with a surprise win for the newly founded populist Forza Italia party, led by media tycoon Silvio Berlusconi.

4.4.3. Discussion

The most striking aspect of the reform of the Banca d'Italia in 1992 is probably that it was widely perceived as a non-event. In the years up to the reform, the central bank had been involved in an ongoing struggle for more autonomy from the Treasury. This proved to be relatively successful, even though formal legislation remained unchanged. The most crucial event was the 1981 “divorce”, which freed the Banca d'Italia from buying unsold government bonds at auctions. This step laid the foundation for a more autonomous Banca d'Italia, which was in line with a far-reaching transformation of the Italian economy toward a stronger market orientation. The change in central bank legislation in 1992 did not mark the beginning of a new era in Italian central banking; rather, it was the endpoint of a transformation that had been ongoing since the early 1980s.

The passing of the reform coincided with a currency crisis, Italy’s forced exit from the EMS. The first part of the reform was passed before Italy’s EMS departure in September 1992, the second one only a few months after. But there is no indication that the currency crisis played a major role in the central bank reform. Rather, the crucial event in 1992 was the Maastricht Treaty, which made a commitment to CBI a prerequisite for joining the EMU. Besides the currency crisis, Italy also experienced a major political crisis in the early 1990s, with the whole political system imploding. The Banca d'Italia was perceived as one of the few institutions not affected by the corruption scandals, which probably was one of the main reasons why two former Banca d'Italia governors became prime ministers in those turbulent years.

Credibility considerations played a role only insofar as many Italian officials considered a transformation of the economy as necessary to stay a trustworthy creditor at

the international financial markets. The perceived lack of credibility was not due to the presence of left-wing parties in the government coalition, but rather because of Italy's history of monetary instability from the 1970s onward. Data on inflation and the lira's external value show that monetary stability was reached before the reform was implemented, which demonstrates that CBI reforms are not necessary to implement stabilization policies successfully, as was argued in Section 2.2.4.

4.5. Reform of the Bank of Japan

Japan's central bank is the Bank of Japan (BOJ). Its foundation dates back to the nineteenth century. Despite its long history, the BOJ did not undergo many institutional changes. After the central bank legislation was changed in 1942 to finance war expenses, the BOJ's status remained unchanged until the 1990s, which saw both a major economic crisis and the end of the Liberal Democratic Party of Japan's (LDP) dominance of the political system. In 1997, the BOJ's institutional position was strengthened: a reform was passed which increased the BOJ's autonomy substantially.

4.5.1. Historical context

The BOJ was founded in October 1882 and became the only financial institution with the right to issue banknotes two years later (Cargill, Hutchinson, and Ito 1997, 17). From its establishment onward, the central bank was subordinate to the Ministry of Finance (MOF). Important events in the first decades after the establishment of the bank include a major earthquake in Tokyo in September 1923 and a banking crisis in 1927. The former resulted in massive interventions by the BOJ and, in part, monetary financing of the government's repairment bills. The latter led to a new banking law in 1928. While the new legislation did not change the BOJ's institutional status, it led to a stronger influence of the government on the financial sector. In the 1930s, further measures in that direction were taken and, finally, in 1942, the BOJ law was changed. All these reform steps were part of a more general war mobilization. The new law required the BOJ to support the government in whatever steps it took. Furthermore, the MOF's control over the BOJ was complete (Cargill, Hutchinson, and Ito 1997, 21; Cargill, Hutchinson, and Ito 2000, 87).

After the war, there were only minor changes to the BOJ law, which resulted, for instance, in the establishment of a Policy Board in 1949. The more fundamental institutional position of the BOJ, however, remained unchanged. In the late 1950s and the

early 1960s, some debate about reforming the central bank arose, but did not result in any new legislation. A main reason for the absence of further reform proposals was the relative prosperity that Japan achieved in the post-war decades. Only the five years after WWII proved to be painful, since Japan's industrial base was destroyed and inflation went out of control. But then the so-called Dodge plan¹³ led to macroeconomic stabilization and brought down inflation by curbing the government's budget deficit and excessive monetary growth. The Dodge plan was enacted in 1949; Japan's inflation rate declined from 166 percent in 1948 to 18.2 percent in 1950 (Cargill, Hutchinson, and Ito 1997, 28).

In the years between 1950 and 1973, the country experienced high economic growth and moderate inflation. During the time, Japan was part of the Bretton Woods system. Accordingly, the main task of monetary policy was to maintain the fixed exchange rate. The BOJ relied heavily on window guidance, a technical term for the practice of influencing commercial banks' lending decisions by instructing quantitative limits. The Japanese economy grew by an average rate of 10 percent a year between 1950 and 1973. As Cargill, Hutchinson, and Ito (1997, 32) point out, the size of the economy doubled every seven years. Among industrialized countries, Japan's growth rate was the highest. At the same time, the price level remained relatively constant with an average inflation of 4.5 percent between 1950 and 1972.

Things changed in the early 1970s, when the Bretton Woods system collapsed. The United States abandoned the gold convertibility of the dollar in August 1971 without consulting the other Bretton Woods members beforehand. Japan did play a role in the decision as the United States had demanded a reevaluation of the yen, which Japan had refused (Cargill, Hutchinson, and Ito 1997, 34). In the following years, the BOJ failed to keep prices constant. Eventually the yen did appreciate, and the central bank tried to offset the negative effect on the economy by stimulating growth. The inflation rate rose to 12 percent in 1973 and to 23 percent in 1974 (Cargill, Hutchinson, and Ito 1997, 35).

The BOJ switched course in 1975 and adopted a monetarist strategy, that is, it started targeting monetary growth rates. Japan's financial system was in flux, markets were substantially liberalized. With the financial system moving toward a more market-oriented approach, the window guidance policy was dismantled gradually in the late 1970s and early 1980s. In 1991, it was abolished officially (Lukauskas and Shimabukuro 2006, 131).

13 The Dodge plan was an economic reconstruction plan named after its creator, a U.S. economic adviser called Joseph Dodge.

In the late 1980s, a major asset price bubble emerged. From 1985 to 1989, the economy experienced high growth and low inflation rates. At the same time, the yen appreciated and the financial system was further liberalized. Stock prices as well as land prices surged. The Nikkei 225 index rose from 13,000 points in December 1985 to 39,000 points in December 1989 (Cargill, Hutchinson, and Ito 1997, 91). The price index for commercial land in six metropolitan cities tripled in the time period between March 1986 and March 1990.

The bubble finally burst in 1989, after the BOJ decided to tighten monetary policy. Stock prices fell by 60 percent from 1990 to 1992 and land prices halved from 1991 to 1995. The BOJ faced harsh criticism for not recognizing and preventing the asset price bubble, and also for not counteracting the following bust in a strong enough manner. On the other hand, the MOF was criticized for its failure to deal with the problem of nonperforming loans in the early 1990s. The liquidation of the *jusen* industry in 1995 damaged the MOF's reputation even further since it became clear that the ministry had grossly understated the magnitude of the non performing loan problem (Cargill, Hutchinson, and Ito 2000, 92).

Politically, the post-bubble years saw the end of the total dominance of the LDP, which had ruled Japan for decades. The LDP lost its majority in the Lower House in 1993, after many party members defected to newly established parties (Cox and Rosenbluth 1995, 367). For a short period of less than a year, a coalition of several parties ousted the LDP and took office. This anti-LDP coalition passed an electoral reform that was expected to be disadvantageous to the LDP (Reed, Scheiner, and Thies 2012, 356–357; Pempel 2010, 242).

After the failure of this government coalition in 1994, the LDP managed to return to power as a dominant partner in a new coalition government consisting of the LDP, the Socialist Party and Sakigake. Both of the LDP's coalition partners adopted a critical stance toward the MOF and demanded reform of the ministry (Hiwatari 2000, 112–116; Lukauskas and Shimabukuro 2006, 132). Sakigake especially had a “firm anti-MOF attitude” and pressed the LDP for reform (Heckel 2014, 46). However, as Dwyer (2004, 254) points out, some members of the LDP advocated tackling the MOF problem themselves as it fitted in their newly found reformist rhetoric. Public anger at the MOF was fueled by the economic crisis on the one hand, but also by cases of personal corruption in which MOF officials were involved (Lukauskas and Shimabukuro 2006, 132; Cargill, Hutchinson, and Ito 1997, 193; Dwyer 2004, 253).

4.5.2. The 1997 reform and its triggers

The three coalition parties started negotiations in 1996 with the goal to reform the MOF. Central bank reform was part of the negotiations since the MOF was in charge of the BOJ, but not explicitly targeted in the early stages. However, as soon as July 1996, the parties involved agreed that the BOJ should become independent of the MOF. This marked a milestone in Japanese central bank legislation since the BOJ law had not been changed substantially since 1942. But while central bank reforms in other industrialized countries were often implemented because politicians thought that independent central banks led to economically superior outcomes, this was not the main aspect in Japan. Instead, the focus of the reform was clearly on weakening the MOF, not on efficiency considerations (Lukauskas and Shimabukuro 2006, 128; Dwyer 2004, 246).

In terms of partisan orientation, Sakigake and LDP both were conservative parties, which are usually thought of as being in favor of CBI. However, the LDP has been in power for decades and never took any steps toward CBI. This might be explained by the lack of party competition. The LDP did not have to fear a left-wing opposition taking over and, hence, the need for tying the hands of future governments did not arise. After all, the future government very likely consisted of the LDP. The Socialist Party obviously was more to the left than the LDP, but as a relatively minor coalition partner, its participation in government was unlikely to produce a major change of direction in economic policymaking. Hence, the need for signaling credibility by delegating monetary policy because of the Socialist Party's left-wing credentials did not arise.

In July 1996, the Central Bank Study Group was established to plan the details of the reform. In November, it issued a report in which greater independence of the BOJ was advocated. As the institution that had much to lose, the MOF tried to influence the reform process. It is not fully clear whether the primary goal of the MOF was to stop the reform altogether or simply to retain some influence over the BOJ in a new institutional framework. As Lukauskas and Shimabukuro (2006, 132–133) point out, the reform indeed came under pressure within the LDP, and momentum for the BOJ reform waned.

However, when major LDP figures intervened and argued that the reform was central to the larger economic reform program of the government, it progressed. Public anger with the MOF was central to the recommitment to the reform. Prime Minister Hashimoto's approval ratings declined substantially and put pressure on the LDP to pursue the reform program (Lukauskas and Shimabukuro 2006, 132–133; Dwyer 2004, 254).

In further consequence, a government bill was drafted by the MOF itself and finally adopted with substantial changes in the Japanese Diet in June 1997. The new central bank legislation was effective in April 1998. The reform dramatically reduced the MOF's influence over the BOJ. Most of its supervisory authority over the BOJ's operations disappeared, with a mere monitoring of the BOJ's budget staying in place. The law, however, increased political influence over the BOJ in other areas. The parliament now had the right to approve the government's appointment of the governor. Also, the governor had to participate in parliamentary hearings when requested and report to the Diet at least every six months. Apart from that, the law included the possibility for the Cabinet to request a delay in monetary policy decisions and to place its own proposals on the agenda of the BOJ's Policy Board (Lukauskas and Shimabukuro 2006, 133).

Even though the reform was no direct response to the economic crises, it would be wrong to conclude that it played no role whatsoever. The 1990s are often referred to as Japan's lost decade, and the BOJ is one of the main actors in economic policymaking. Criticism of the BOJ focused mainly on two aspects: First, it was not able to prevent the asset-price bubble. Therefore, some critics blame the BOJ of being responsible for the bubble, if not even having created it itself (Cargill, Hutchinson, and Ito 1997, 111–114). Those lines of criticism are usually based on the claim the monetary policy had been too easy in the years up to the crisis and was tightened too late.

A second aspect of criticism draws on the years following the asset-price bubble. Those critics argue that the BOJ failed to counteract the economic downturn and did not prevent Japan's fall into deflation (Mishkin 2010, 612). Whether those arguments are correct or not is subject to intense debate in monetary economics, but it is not directly relevant for the purpose of this thesis. However, it is relevant that the criticism existed in the public and put pressure on the BOJ, but also on the MOF and the government.

While there was no currency crisis or soaring inflation, the general economic downturn and the banking crisis of the early 1990s were very much present at the time the reform was initiated. The deflation of the late 1990s can be interpreted as failure to achieve price stability. But it was less the crisis itself that triggered the reform than the perceived handling of the crisis by the MOF. The reform was debated for the first time in 1996, years after the asset-price bubble burst in 1990. Political aspects certainly played a role. As a result of the unique economic crisis, the political landscape of Japan was shaken. The LDP had shaped post-war Japan like no other party; in fact, it never lost power until the 1990s. In 1993, for the first time since the LDP's foundation in 1955, it found itself in opposition.

The new ruling coalition, which consisted of several smaller parties, failed to stay in power for longer than a year and the LDP returned to power in 1994. However, it had to rely on coalition partners to do so. Stronger political competition usually puts pressure on parties to respond to the electorate's demands.

With the broader public anger directed at the MOF, and the LDP's coalition partners demanding a reform of the ministry, the prime minister's party had trouble ignoring the complaints. But it should not be overlooked that the LDP consisted of several powerful factions, whose interests differ from time to time. This means that even within the LDP, different suggestions on how to deal with the problems existed. Since the LDP's coalition partners pushed for the reform, the costs of fighting the idea became higher.

Pressure by international markets, on the other hand, did not really affect the reform. While it has to be acknowledged that a general demand toward reforming Japan's economy existed, there was no refinancing crisis and no external actors exerted pressure on Japan to implement the CBI concept. The BOJ itself had voiced concerns several times that the Japanese economy was not competitive anymore. Also, the government announced a banking reform, sometimes referred to as "Big Bang", in 1996, which gained credibility with the delegation of monetary policymaking. But at the same time, central bank reform was in no way crucial—neither for reforming the overall economy nor for banking reform.

The exact design of the reform indicates that it was not so much curbing politicians' influence over the BOJ in general that triggered the reform, but rather tying the hands of the MOF. After all, the new legislation included relatively strong options for politicians to interfere in the policymaking process—as long as those politicians are members of the Diet.

4.5.3. Discussion

The BOJ reform was clearly triggered by domestic political developments. It was less the ongoing financial crisis of the early 1990s that led to the reform, but rather the mishandling of the crisis by the MOF. The crucial trigger for the reform was the public's anger over the MOF and, accordingly, the LDP's diminishing electoral prospects. By agreeing to the BOJ reform, the LDP hoped to shift the blame from itself to the MOF and, at the same time, to distance itself from the unpopular ministry.

Despite the common assumption that conservative parties should be in favor of independent central banks, the LDP never made serious attempts to reform the BOJ's

institutional position in the decades before the 1990s. The fact that there was no serious electoral competition may explain this. The LDP did not have to tie the hands of future governments because it assumed that future governments would anyway be led by the LDP. After losing office in 1994, the LDP realized that the danger of being ousted from power was real. Stronger party competition led to a stronger responsiveness to the electorate's demands. However, the LDP rather reluctantly started negotiating with its coalition partners. Only after declining approval ratings put pressure on the LDP, it was ensured that the faltering reform process went on.

The LDP did not change its preferences in the light of a crisis, but it calculated that sacrificing the MOF would save its own position in power. As a consequence, the LDP gave up its policy position to win votes and, subsequently, stay in office. It cannot be ruled out that even a government consisting solely of the LDP would have been forced to respond to the MOF's weakening position in the public. However, with new actors involved in the decision-making process—the two coalition partners—that pushed for the reform, things were certainly speeded up. The BOJ reform followed the destruction of the post-war Japanese economic system as well as the decline of the LDP. But while both economic and political circumstances changed, the implementation of the reform was clearly triggered by political considerations.

4.6. Reform of the People's Bank of China

China's central bank is the People's Bank of China, which was founded in 1948 and—as the Chinese economy as a whole—underwent major changes since its foundation. The first reform of 1983 marked the establishment of the People's Bank of China (PBC) as a central bank in the modern sense, after decades in which the bank was merely an executive part in the monobank system. Twelve years later, the 1995 reform again changed the institutional position of the bank in important ways. The following section will discuss this reform in more detail.

4.6.1. Historical context

The establishment of the PBC dates back to December 1, 1948. At that time, the Chinese civil war was still being fought and the People's Republic of China (PRC) did not even exist. China's communists, however, already controlled significant parts of the territory which would later on constitute the PRC. They merged the three major banks in this area

into one and created the PBC. After the foundation of the PRC in the following year, the PBC became a crucial part of the country's banking system. The economic system of the PRC was modeled closely after the Soviet Union, i.e., it was based on the principles of central planning. With regard to the financial system, this concept meant that banking was fully in the hands of the government. More precisely, the PBC was the only bank in the country and, therefore, fulfilled both central and commercial bank functions. In technical terms, a monobank system was established. The PBC did not dominate the banking system; it was the banking system. By 1952, the PBC handled 92.8 percent of total savings and around 90 percent of the total financial transactions (Bell and Hui 2013a, 56; Leung and Mok 2000, 41).

While these numbers suggest a powerful role within the PRC's economic system, the actual institutional power was rather low. As Bell and Hui (2013a, 42) point out, the PBC was a "mere agent for the central planning apparatus." While it had local branches all over the country, the PBC was rather an administrative tool than a policymaking body within the Chinese economic system. The State Planning Commission (SPC)—and not the PBC—had the authority over monetary matters. But the PBC's minor role also resulted from the fact that in China's economic system, monetary policy played no role whatsoever. The use of monetary policy is dependent on functioning markets, something that was not part of the central planning system. As a result, the institutional role of the central bank was marginalized. The weak institutional status of the PBC was reflected in the decision to absorb it into the MOF in July 1969.

Things started to change after the CPC's then chairman and China's de facto leader, Mao Zedong, passed away in September 1976. Only two years later, the new leadership introduced economic reforms that marked a change of course in China's economic policymaking. Generally speaking, the reforms aimed to open up and decentralize the economy. Starting in agriculture, initial successes were soon achieved. As a consequence, the leadership aimed to implement economic reforms in wider parts of the economy. The monobank system, however, proved to be cumbersome for the direction in which the reforms went. As Holz (2000, 83) points out, China's financial system was stable prior to the reform period. But as soon as reforms in the real economy were implemented, the need for changes in the financial system followed. As a consequence, the monobank system was gradually dismantled.

In March 1978, the PBC gained ministerial ranking, which meant that it was no longer part of the MOF. In the following years, the PBC's commercial functions were

delegated to specialized banks. The monobank system was replaced by a two-tiered banking system, in which four state banks took over the commercial functions of the PBC. Those banks had specific fields of specialization. The Agricultural Bank of China was separated from the PBC in March 1979. As the name indicates, it specialized in financing the reforms in the agricultural sector. At the same time, the Bank of China was separated from the PBC. In January 1983, the People's Construction Bank of China became part of China's banking system. One year later, in January 1984, the Industrial and Commercial Bank of China was created. Until today, the four banks are referred to as the "Big Four" (Allen et al. 2013, 67; Dobson and Kashyap 2006, 106; Pei 1998, 322).

The establishment of the two-tiered banking system changed the very nature of China's financial system. But apart from gaining ministerial ranking, the PBC's status had stayed the same. It became more and more apparent that some changes were needed to accommodate the new situation in the financial system. The commercial functions were delegated to the four state banks, but the PBC could still hardly be considered a modern central bank. In a more market-based banking system, monetary policy would become more important, and within the PBC, the need for new instruments arose. In September 1983, a decree was passed that transformed the PBC from a monobank into a central bank within the newly established two-tiered banking system.

The decree changed the PBC's position and its tasks in several ways. First, the status and the institutional mandate of the PBC were stated for the first time in history. The PBC was defined as a "government agency [...] under the leadership of the State Council" (Bell and Hui 2013a, 64). In the domain of policy, among the PBC's new defined tasks were control of the money supply, regulation of interest rates and exchanges rates, control of credit funds through Credit Plans, and also regulation of financial institutions.

While the economic reforms in the 1980s proved to be successful in terms of growth, these came with side effects. The Chinese economy reached a situation of overheating several times, which resulted in strong increases in the price level in 1980, 1985 and 1988 (Naughton 1991, 208). Bell and Hui (2013a, 84) characterize the financial system at that time as "pro-cyclical and inflation prone." In 1988, inflation got out of hand, with the urban consumer price index reaching 20.7 percent. The following year, the price increases decelerated only modestly, with an inflation rate of 16.3 percent (Naughton 1991, 208). The rising costs of living might have contributed to the outbreak of the student protests, which lead to the Tiananmen massacre in 1989, wherein an unknown number of protesters was killed.

The PBC responded to the high inflation rates by tightening money. The inflation rate was brought down successfully; however, the economy experienced a hard landing and fell into recession. The poor macroeconomic performance of 1988–89 was blamed on the reform-oriented former Prime Minister and then Party Secretary Zhao Ziyang, who lost power over economic policy in 1988. After the Tiananmen protests in 1989, he was completely removed from power and conservative hardliners took over (Naughton 2008, 103–105).

Bell and Hui (2013a, 93) argue that “[i]nflation had become a new and salient issue confronting the Party leadership.” The monetary tightening of 1988–89 had proved that the PBC was capable of curbing inflation pressures, even though this success was associated with high economic costs. The more market-based economic system made it harder for the leadership to directly influence prices. At the same time, monetary policy—as a tool to influence inflation—became more important. The Tiananmen massacre made large parts of the leadership become more conservative. Reform policies were stopped, and some conservative party leaders even attempted to roll back major parts of the economic reform policies—a threat which never materialized (Naughton 2008, 105).

4.6.2. The 1995 reform and its triggers

After 1989, China seemed to be caught in a “reform trap” (Naughton 2008, 114). It was not until 1992 that the reformers within the Chinese leadership prevailed again. Two events spurred the turn back to reform policies. In early 1992, party leader Deng Xiaoping made his now-famous “Southern tour,” in which he called for further reform efforts and pointed out the need for these reforms. The second important aspect was that the influence of certain conservative “party elders” was curbed substantially after one of them—former president Li Xiannian—passed away. The new party secretary Jiang Zemin managed to consolidate his power and strengthened his influence over the decision-making processes (Naughton 2008, 115). In the fall of 1992, the CPC congress adopted the concept of a “socialist market economy” as a goal, which marked the first time that the party acknowledged the existence of some kind of market economy. In the following course, new reform policies were implemented.

As was the case in the 1980s, the reforms again spiked inflationary pressure. But now that the power struggle between reformers and conservatives was settled, it was clear that this would not lead to the abandonment of the economic reform path. With China moving in a more market-oriented direction, inflation had to be tackled in a market-

compatible way, that is, by the means of monetary policy. The PBC became a reform target since it had already strengthened its position in the years before, as it was the only institution with expertise in monetary policy. Owing to the lack of expertise in other parts of the government, the Chinese leadership had to rely on the PBC to tackle the problem of inflation. Even though the PBC's formal status in the early 1990s remained unchanged, its position within the political system had improved.

The rising importance of the PBC was also reflected in its leadership. In July 1993, Zhu Rongji became governor of the PBC. Zhu was considered a political heavyweight at that time, which indicates that the PBC had gained importance since governors in the past had been rather minor figures in China's political landscape (Pei 1998, 328; Bell and Hui 2013b, 210). Less than two years later—in March 1995—the National People's Congress adopted the new PBC legislation. Bell and Hui (2013a, 142) consider the passing of the law “a milestone in modernizing the Chinese central bank.”

While the law reiterated that the PBC was under the leadership of the State Council, it granted much more autonomy to the central bank. For instance, the law states the PBC is independent of interference by local governments or other government departments. This step led to a centralization of power within the PBC insofar as local governments usually interfered with local branches of the central bank. As Pei (1998, 328) points out, this interference was a “major cause” of inflationary pressures. The new mandate also states that currency stability and the supervision of financial institutions are the two most important goals. Furthermore, it included changes with regard to government financing. The PBC was not allowed to finance the Treasury via overdraft anymore; it was also banned from directly purchasing government debt (Pei 1998, 340–341).

With the ban on direct state financing, the content of the reform in some way resembles central banking reforms in Western countries. However, the Chinese leadership refrained from granting independence to the central bank. Most of the important monetary policy decisions still require approval by the State Council. Those decisions include changes in lending and deposit rates, changes in discount and rediscount rates, and changes in reserve requirements. In contrast, the PBC is free to use open market operations and window guidance at its own discretion (Geiger 2008, 54). Bell and Hui (2013b, 201) argue that the CPC sees delegation of monetary policy as a potential threat to power. Some observers, e.g. Goodfried and Prasad (2007, 29–36), argue that the PBC will need operational (instrument) independence to achieve steadily low inflation rates.

The new law included a comprehensive mandate for the PBC, that is, price stability and economic growth were considered equal objectives. In principle, this is a dual mandate comparable to the one the U.S. Federal Reserve follows. However, it is controversial whether the PBC actually considers price stability and economic growth as equal objectives. Some scholars argue that China's central bankers are, in fact, more focused on price stability (Bell and Hui 2013a: 141). The PBC itself pushed for price stability as the top priority in the mandate. As Bell and Hui (2013a, 158) point out, the PBC seized a window of opportunity because inflation was high at the time the reform was passed and pushed the government to include price stability as formal priority into the law.

TABLE 14. Inflation rates in China 1987–1997 (year-on-year, as measured by the CPI)

1987	7.2	
1988	18.7	
1989	18.3	Reform policies were stopped
1990	3.1	
1991	3.5	
1992	6.3	Return to the reform path
1993	14.6	
1994	24.2	
1995	16.9	Central bank reform
1996	8.3	
1997	2.8	

Source: World Bank database

4.6.3. Discussion

The 1995 central banking reform in China was both a response to financial turmoil in the form of high inflation rates as well as an expression of an ongoing transformation of the economic system. After the monobank system was dismantled and a two-tiered banking system was established in the 1980s, inflation increasingly became a problem. The PBC brought down inflation successfully in 1990, but strong inflationary pressures arose again from 1993 onward. The CPC leadership viewed inflation as a threat to their legitimacy and considered strengthening the PBC as an appropriate response since the central bank was considered the only institution that had the necessary knowledge to curb inflation.

The position of the PBC had already been strengthened informally in the years up to the reform, which was mainly founded on its expertise with respect to inflation. It also helped that for the first time in the history of the PBC, a political heavyweight led the organization after Zhu Rongji became governor in 1993. Apart from that, the timing of the reform was influenced by a power struggle between conservatives and reformers within the CPC, which was won by the latter and made it possible that new reforms were tackled.

4.7. Comparative Assessment

This chapter discussed central bank reforms in four different countries. Three of them are industrialized countries, one a developing country. On the other hand, three are liberal democracies and one is an autocracy. The motivations for the reforms were quite different. The reforms in the United Kingdom and Japan were clearly driven by credibility considerations. While the newly elected Labour government tried to signal a stability-oriented economic policy course to the public, the LDP-led Japanese government responded primarily to electoral incentives. The LDP feared that the unpopular MOF would hurt its chances at the ballot box and found it necessary to demonstrate reform willingness to the electorate. Curbing the MOF's influence on the BOJ enhanced the LDP's credibility as a reform-oriented party. Clearly, it was no coincidence that the reform was initiated in an election year. The British Labour Party, on the other hand, passed its central bank reform directly after being elected in office. The reform signaled economic stability orientation, which Labour lacked, because it was often portrayed as the party of economic instability, especially because of the IMF loan that a Labour government had to apply for in the 1970s.

Italy's central bank reform was also about credibility, but in a more indirect way. As already discussed, the most striking aspect about the reform is that it was perceived as a non-event. Neither the currency crisis with the forced exit from the ERM nor the two changes in government in the reform year 1992 played a major role. Rather, it was part of a long-term trend of a stronger market orientation in the Italian economic system. The reform was the institutionalization of a policy change that occurred more than ten years earlier, that is, the "divorce" between the Banca d'Italia and the Treasury in 1981. The strong consensus that Italy's economic system required reform and the membership of the country in the EMU was necessary can be interpreted as a response to a lack of credibility of the domestic economic policy arrangement since the 1970s.

In that sense, the reform of the People's Bank of China has a surprising similarity, as it was also part of a broader rebuilding of domestic economic institutions toward a stronger market orientation. However, while Italy sought to enhance its credibility in response to the internationalization of its economy and, more generally, to globalization, these considerations did not really play a big role in China. The country was not dependent on foreign investors and did, in fact, even impose strict capital controls at the time of the reform.

But while there was no need to please foreign investors, the Chinese government had to tackle economic reform in the light of rising inflation rates and economic instability. In that sense, the Chinese reform is the only one of the four cases that were discussed where the institutional changes were a direct response to a financial or economic crisis. Credibility, on the other hand, did play a role, but was less relevant. Since the CPC draws much of its legitimacy from China's economic performance and the success of reform policies, it could be argued that failure to tackle the inflation crisis would have hurt the CPC's credibility. But since the CPC did not face any electoral pressure, the effect was probably smaller than it would have been if China were a liberal democracy.

5. CONCLUSIONS

The aim of this thesis was to contribute to the understanding of mechanisms driving central bank reforms. While many countries decided to delegate monetary policy to independent central banks from the 1980s to 2010, they did so to varying degrees. Based on a theoretical framework, building upon rational choice institutionalism, it was assumed that central bank reforms follow a political logic. In other words, the variance in central bank reforms should be understood in the context of politics, not economics. More specifically, it was assumed that central bank reforms are driven mainly by two motivations. First, political actors try to counteract a credibility deficit. The need to demonstrate credibility can arise from dependence on foreign investors as well as from the domestic electorate. Second, political actors try to isolate monetary policy from the political sphere, and see delegation as a means to tie the hands of future governments.

Based on these considerations, three hypotheses were tested. It was theorized that countries that experienced inflation, currency, or banking crises are likely to implement more far-reaching central bank reforms since the crisis damaged the credibility of the existing institutional setting. Hence, the need for reform becomes a necessity for the government, which otherwise would face pressure from the international financial markets or the electorate. In authoritarian countries, an economic crisis might increase the chance of a coup d'état or a public uprising.

But a lack of credibility is not necessarily associated with an external shock such as an economic crisis. It can also result from a government's ideological orientation. In monetary policy, standard partisan assumptions are that left-wing parties tend to place more weight on fighting unemployment than on keeping inflation rates low. Right-wing governments, on the other hand, are assumed to have a stronger preference for price stability. Therefore, international investors might charge a risk premium for bonds of countries ruled by left-wing governments, while inflation-averse voters may fear that price stability and, accordingly, their savings might be in danger. To counteract this credibility deficit and signal a commitment to stability-oriented monetary policy, delegation becomes a rational strategy for left-wing governments.

The third hypothesis is built on the assumption that political actors opt for delegation to tie the hands of future governments. Since governments do not stay in office forever, they have to think about the time after they leave. To make sure future

governments do not implement policies the current government wants to avoid, delegating monetary policy to an independent central bank is a rational strategy. It was assumed that politicians' awareness of a possible loss of power is higher when their terms of office end. Hence, political actors should be more likely to implement far-reaching central bank reforms at the end of their terms of office.

The statistical analysis carried out in this thesis showed that economic crises are strongly associated with major changes in central bank legislation. In more than 60 percent of the central bank reforms in the data-set, the respective countries experienced inflation rates of above 10 percent in at least one of three years prior to the reform. In 18 percent of the cases, inflation exceeded 100 percent. Currency crises and banking crises are also very strongly associated with changes in central bank legislation. While the data showed a clear relationship between crises and central bank reforms, the presence of crises does not explain the degree of change in central bank legislation. The first hypothesis was not confirmed by the data.

In contrast, the data showed that left-wing governments are indeed more likely to implement stronger changes in central bank legislation than right-wing or centrist governments. This provides a strong indication for the hypothesis that left-wing governments use delegation of monetary policy as a mean to counteract a credibility deficit. The results of the regression analysis further showed that governments are more likely to implement far-reaching central bank reforms if their terms of office are at an end, which indicates that they try to tie the hands of future governments. Taken together, the results of the regression analysis demonstrate that while the presence of crises is indeed a strong predictor for central bank reforms, its particular content is explained better by political aspects.

Four cases of central bank reforms were investigated more closely. The reform of the BOE in 1997 provides further indication for the hypothesis that left-wing governments establish independent central banks to signal their commitment to monetary stability. However, the Labour Party rather aimed to demonstrate this commitment to the electorate, and especially home mortgage owners than to foreign investors.

On the other hand, Italy's central bank reform in 1992 occurred at a time of political turmoil and coincided with a major currency crisis, namely the forced exit from the ERM. The reform, however, was not triggered by either one of the two events, but rather was a response to the Maastricht Treaty, which made an independent central bank a prerequisite

for participation in the EMU. Becoming a member of the EMU was considered necessary to further modernize the country's economy and strengthened Italy's credibility on the financial markets. Strikingly, the reform was largely perceived as a non-event, which can be explained by the fact that it only formalized what had been an informal practice for years. More crucial than the 1992 reform was the so-called "divorce" in 1981, which freed the central bank from its obligation to buy unsold government bonds.

The reform of the BOJ in 1997 is a poster case for politics as the main driver for a change in legislation. At the time the reform was passed, the country had been in an economic crisis for years. While it would have been plausible to blame at least part of the situation on the BOJ, the Japanese government made no attempts to reform the central bank until another institution—the Ministry of Finance—came under public pressure. With the LDP's approval ratings declining and elections coming up, the government used the reform to remove the BOJ from the ministry's influence and, by doing so, signaled a tough stance against the ministry to the electorate. Even though the reform was passed at the end of the term, it was not aimed at tying the hands of future governments, but rather the hands of the Ministry of Finance.

In contrast, electoral consequences obviously did not play a role in China's reform of its central bank in 1995. Rather, the reform was a response to soaring inflation rates in the transformation process of the economy. The CPC leadership increasingly began to view inflation as serious threat to its legitimacy. The PBC was viewed as the only institution that had the necessary knowledge to curb inflation. In part, the reform formalized a stronger institutional position of the PBC, which it had already reached informally. Apart from that, the timing of the reform was influenced by a power struggle between conservatives and reformers within the CPC.

To conclude, the case studies provided valuable additional information that cannot be captured by statistical methods. The case of Japan indicates that aspects of electoral accountability deserve a closer look. Reforms that are implemented at the end of a term do not necessarily reflect the desire to tie the hands of future governments; electoral incentives may also play a role. While most of the research on CBI is focused on formal changes, the cases studies provide evidence that informal aspects should not be overlooked either. In three of the four cases, the central banks had already increased their power informally in the years up to a formal change in legislation.

Moreover, further research should also focus on the differences in delegation between democratic and authoritarian systems, and between developing and industrialized countries as well. The case of China that has been discussed indicates that the mechanisms of delegation differ in some aspects.

6. LITERATURE

- Alesina, Alberto. 1998. "Macroeconomics and Politics." In *NBER Macroeconomics Annual*, ed. Stanley Fischer. Cambridge: The MIT Press. 17–52.
- Alesina, Alberto, and Lawrence H. Summers. 1993. "Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence." *Journal of Money, Credit and Banking* 25(2): 151–162.
- Allen, Franklin, Jun "QJ" Qian, Chenying Zhang, and Mengxin Zhao. 2013. "China's Financial System: Opportunities and Challenges." In *Capitalizing China*, eds. Joseph P. H. Fan and Randal Morck. Chicago: University of Chicago Press. 63–143.
- Arnove, Marco, Bernard J. Laurens, Jean-Francois Segalotto, and Martin Sommer. 2009. "Central Bank Autonomy: Lessons from Global Trends." *IMF Staff Papers* 56(2): 263–296.
- Bade, Michael, and Robin Bade. 1982. "Central Bank Laws and Monetary Policy." Unpublished Manuscript, University of Western Ontario.
- Bagheri, Fatholla M., and Nader Habibi. 1998. "Political Institutions and Central Bank Independence: A Cross-Country Analysis." *Public Choice* 96(1/2): 187–204.
- Barro, Robert J., and David B. Gordon. 1983. "A Positive Theory of Monetary Policy in a Natural Rate Model." *The Journal of Political Economy* 91(4): 589–610.
- Bean, Charles. 2007. "Is There a New Consensus in Monetary Policy?" In *Is There A New Consensus in Macroeconomics?*, ed. Philip Arestis, New York: Palgrave Macmillan. 167–185.
- Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh. 2001. "New Tools in Comparative Political Economy: The Database of Political Institutions." *World Bank Economic Review* 15(1): 165–176.
- Belke, Ansgar and Niklas Potrafke. 2012. "Does Government Ideology Matter in Monetary Policy? A Panel Data Analysis for OECD countries." *Journal of International Money and Finance* 31(5): 1126–1139.
- Bell, Stephen, and Hui Feng. 2013a. *The Rise of the People's Bank of China. The Politics of Institutional Change*. Cambridge, Massachusetts: Harvard University Press.
- Bell, Stephen, and Hui Feng. 2013b. "How Proximate and 'Meta-institutional' Contexts Shape Institutional Change: Explaining the Rise of the People's Bank of China". *Political Studies* 62(1): 197–215.

- Bernanke, Ben S., and Frederic S. Mishkin. 1997. "Inflation Targeting: A New Framework for Monetary Policy?" *Journal of Economic Perspectives* 11(2): 97–116.
- Bernhard, William. 1998. "A Political Explanation of Variations in Central Bank Independence." *American Political Science Review* 92(2): 311–327.
- Bernhard, William. 2002. *Banking on Reform. Political Parties and Central Bank Independence in the Industrial Democracies*. Ann Arbor: The University of Michigan Press.
- Bernhard, William, Lawrence Broz, and William Roberts Clark. 2002. "The Political Economy of Monetary Institutions." *International Organization* 56(4): 693–723.
- Berselli, Edmondo. 2001. "The Crisis and Transformation of Italian Politics." *Daedalus* 130 (3): 1–24.
- Beyeler, Michelle. 2007. *The Paths to Price Stability. An International Comparison*. Bern: Haupt Verlag.
- Bini Smaghi, Lorenzo. 2008. "Central Bank Independence in the EU: From Theory to Practice". *European Law Journal*. 14(4): 446–460.
- Bodea, Cristina, and Masaaki Higashijima. 2015. "Central Bank Independence and Fiscal Policy: Incentives to Spend and Constraints on the Executive." *British Journal of Political Science*. Forthcoming.
- Bowles, Paul, and Gordon White. 1994. "Central Bank Independence: A Political Economy Approach." *The Journal of Development Studies* 31(2): 235–264.
- Boylan, Delia M. 1998. "Preemptive Strike. Central Bank Reform in Chile's Transition from Authoritarian Rule." *Comparative Politics* 30(4): 443–462.
- Burnham, Peter. 2001. "New Labour and the Politics of Depoliticisation." *British Journal of Politics and International Relations* 3(2): 127–149.
- Cobham, David, Stefania Cosci, and Fabrizio Mattesini. 2008. "Informal Central Bank Independence: An Analysis for Three European Countries." *Scottish Journal of Political Economy* 55(3): 251–280.
- Cox, Gary W., and Frances Rosenbluth. 1995. "Anatomy of a Split: The Liberal Democrats of Japan." *Electoral Studies* 14(4): 355–376.
- Cargill, Thomas. 2013. "A Critical Assessment of Measures of Central Bank Independence." *Economic Inquiry*. 51(1): 260–272.
- Cargill, Thomas, Michael M. Hutchinson, and Takatoshi Ito. 1997. *The Political Economy of Japanese Monetary Policy*. Cambridge, Massachusetts: The MIT Press.

- Cargill, Thomas, Michael M. Hutchinson and Takatoshi Ito. 2000. *Financial Policy and Central Banking in Japan*. Cambridge, Massachusetts: The MIT Press.
- Capie, Forrest, Charles Goodhart, and Norbert Schnadt. 1994. "The Development of Central Banking." In *The Future of Central Banking*, eds. Forrest Capie, Charles Goodhart, Stanley Fischer, and Norbert Schnadt. Cambridge: Cambridge University Press. 1–112.
- Chada, Jagjit S., Peter Macmillan, and Charles Nolan. 2007. "Independence Day for the 'Old Lady': A Natural Experiment on the Implications of Central Bank Independence." *The Manchester School* 75(3): 311–327.
- Crockett, Andrew. 2003. "Exchange Rate Regimes in Theory and Practice." In *Monetary History, Exchange Rates and Financial Markets. Essays in Honour of Charles Goodhart, Volume Two*, ed. Mizen, Paul. Cheltenham: Edward Elgar. 96–122.
- Crowe, Christopher, and Ellen E. Meade. 2008. "Central Bank Independence and Transparency: Evolution and Effectiveness." *European Journal of Political Economy* 24(4): 763–777.
- Cukierman, Alex. 1992. *Central Bank Strategy, Credibility, and Independence. Theory and Evidence*. Cambridge, Massachusetts: The MIT Press.
- Cukierman, Alex, Geoffrey P. Miller, and Bilin Neyapti. 2002. "Central Bank Reform, Liberalization and Inflation in Transition Economies—an International Perspective." *Journal of Monetary Economics* 49(2): 237–264.
- Cukierman, Alex, Steven B. Webb, and Bilin Neyapti. 1992. "Measuring the Independence of Central Banks and its Effect on Policy Outcomes." *The World Bank Economic Review* 6(3). 253–398.
- De Haan, Jakob, Donato Masciandaro, and Marc Quintyn. "Does Central Bank Independence Still Matter?" *European Journal of Political Science* 24(4): 717–721.
- De Haan, Jakob, and Gert Jan Van 't Hag. 1995. "Variation in Central Bank Independence Across Countries: Some Provisional Empirical Evidence." *Public Choice* 85(3/4): 335–351.
- De Haan, Jakob, Sylvester C. W. Eijffinger, and Sandra Waller. 2005. *The European Central Bank. Credibility, Transparency, and Centralization*. Cambridge: The MIT Press.
- Daunfeldt, Sven-Olov, and Xavier Luna. 2003. "Central Bank Independence and Price Stability: Evidence from 23 OECD-countries." *Oxford Economic Papers* 60: 410–422.

- Daunfeldt, Sven-Olov, Jörgen Hellström, and Mats Landström. 2013. "Why Do Politicians Implement Central Bank Independence Reforms?" *Atlantic Economic Journal* 41(4): 427–438.
- Dellepiane-Avellaneda, Sebastian. 2013. "Gordon Unbound: The Heresthetic of Central Bank Independence in Britain." *British Journal of Political Science* 43(2): 263–293.
- Diermeier, Daniel and Keith Krehbiel. 2003. "Institutionalism as a Methodology." *Journal of Theoretical Politics* 15(2): 123–144.
- Dobson, Wendy, and Anil Kashyap. 2006. "The Contradiction in China's Gradualist Banking Reforms." *Brookings Papers on Economic Activity*, No. 2.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper.
- Drazen, Allan, and William Easterly. 2001. "Do Crises Induce Reform? Simple Empirical Tests of Conventional Wisdom." *Economics and Politics* 13(2): 129–157.
- Dwyer, Jennifer Holt. 2004. "Explaining Central Bank Reform in Japan." *Social Science Japan Journal* 7(2): 245–262.
- Eijffinger, Sylvester, and Martijn van Keulen. 1995. "Central Bank Independence in Another Eleven Countries." *BNL Quarterly Review* 48(192): 41–81.
- Elgie, Robert, and Helen Thompson. 1998. *The Politics of Central Banks*. London: Routledge.
- Elster, Jon. 2000. "Rational Choice History: A Case of Excessive Ambition" *American Political Science Review* 94(3): 685–695.
- Enns-Jedenastik, Laurenz. 2014. "Do Parties Matter in Delegation? Partisan Preferences and the Creation of Regulatory Agencies in Europe." *Regulation & Governance*. Forthcoming.
- Epstein, Gerald A. and Juliet B. Schor. 1989. "The Divorce of the Banca d'Italia and the Italian Treasury: A Case Study of Central Bank Independence." In *State, Market, and Social Regulation. New Perspectives on Italy*, eds. Peter Lange and Marino Regini. Cambridge: Cambridge University Press. 147–164.
- Fernández-Albertos, José. 2015. "The Politics of Central Bank Independence." *Annual Review of Political Science* 18. 217–237.
- Fратиanni, Michele, and Franco Spinelli. 1997. *A Monetary History of Italy*. Cambridge: Cambridge University Press.

- Freedman, Charles. 2003. "Central Bank Independence." In *Central Banking, Monetary Theory and Practice. Essays in Honour of Charles Goodhart, Volume One*, ed. Paul Mizen. Cheltenham: Edward Elgar. 90–110.
- Friedman, Milton (1968): "The Role of Monetary Policy." *The American Economic Review* 58(1): 1–17.
- Geiger, Michael (2010): "Monetary Policy in China: Institutions, Targets, Instruments and Strategies." PhD diss., Julius Maximilian University of Würzburg.
- Giavazzi, Francesco, and Marco Pagano. 1988. "The Advantage of Tying One's Hands. EMS Discipline and Central Bank Credibility." *European Economic Review* 32. 1055–1082.
- Gilardi, Fabrizio. 2002. "Policy Credibility and Delegation to Independent Regulatory Agencies: A Comparative Empirical Analysis." *Journal of European Public Policy* 9(6): 873–893.
- Gilardi, Fabrizio. 2007. "The Same, But Different: Central Banks, Regulatory Agencies, and the Politics of Delegation to Independent Authorities." *Comparative European Politics* 5(3): 303–327.
- Gobbi, Giorgio. 1996. "Government Credit Facilities and Interbank Market Developments in Italy." In *Interest Rate Liberalization and Money Market Development. Selected Country Experiences*, eds. Hassanali Mehran, Bernard Laurens, and Marc Quintyn. Washington: International Monetary Fund. 58–74.
- Goodfriend, Marvin. 2007. "How the World Achieved Consensus on Monetary Policy." *Journal of Economic Perspectives* 21(4): 47–68.
- Goodfriend, Marvin, and Eswar Prasad. 2007. "A Framework for Independent Monetary Policy in China." *CESifo Economic Studies* 53(1): 2–41.
- Goodhart, C.A.E. 1995. *The Central Bank and the Financial System*. London: Macmillan Press.
- Goodman, John B. 1992. *Monetary Sovereignty. The Politics of Central Banking in Western Europe*. New York: Cornell University Press.
- Goodman, John B. 1993. "The Politics of Central Bank Independence." *Comparative Politics*. 23: 329–349.
- Gourinchas, Pierre-Olivier and Maurice Obstfeld. 2011. "Stories of the Twentieth Century for the Twenty-First." *NBER Working Paper* 17252. 1–68.
- Green, Donald P. , and Ian Shapiro. *Pathologies of Rational Choice*. New Haven and London: Yale University Press.

- Grilli, Vittorio, Donato Masciandaro, and Guido Tabellini. 1991. "Political and Monetary Institutions and Public Financial Policies in the Industrial Countries." *Economic Policy* 6(13): 341–392.
- Hall, Peter A., and Rosemary C. R. Taylor. 1996. "Political Science and the Three New Institutionalisms." *Political Studies* 44(5): 936–957.
- Hallerberg, Mark. 2002. "Veto Players and the Choice of Monetary Institutions." *International Organization* 56(4): 775–802.
- Hayo, Bernd, and Carsten Hefeker. 2002. "Reconsidering Central Bank Independence." *European Journal of Political Economy* 18(4): 653–674.
- Heckel, Markus. 2014. "The Bank of Japan—Institutional Issues of Delegation, Central Bank Independence and Monetary Policy." PhD. diss. University of Duisburg-Essen.
- Héritier, Adrienne. 2007. *Explaining Institutional Change in Europe*. Oxford: Oxford, University Press.
- Hicks, Raymond P. 2003. "Globalization and Central Bank Independence: A Partisan Explanation." Unpublished Manuscript. Department of Politics, Princeton University. Online available under: https://www.princeton.edu/~pcglobal/research/papers/hicks_centralbank_reform_0603.pdf (August 8, 2016)
- Hielscher, Kai, and Gunther Markwardt. 2012. "The Role of Political Institutions for the Effectiveness of Central Bank Independence." *European Journal of Political Economy* 28(3): 286–301.
- Hiwatari, Nobuhiro. 2000. "The Reorganization of Japan's Financial Bureaucracy: The Politics of Bureaucratic Structure and Blame Avoidance." In *Crisis and Change in the Japanese Financial System*, eds. Takeo Hoshi and Hugh Patrick. Boston: Kluwer Academic Publishers. 109–136.
- Holz, Carsten A. 2000. "The Changing Role of Money in China and its Implications." *Comparative Economic Studies* 42(3): 77–100.
- Houben, Aerd C.F.J. 2000. *The Evolution of Monetary Policy Strategies in Europe*. Dordrecht: Kluwer Academic Publishers.
- Jácome, Luis I., and Francisco Vázquez. 2005. "Any Link Between Legal Central Bank Independence and Inflation? Evidence from Latin America and the Caribbean." *IMF Working Paper* 05/75. 1–41.
- Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. London: Penguin Books.

- Keefer, Philip, and David Stasavage. 2003. "The Limits of Delegation: Veto Players, Central Bank Independence, and the Credibility of Monetary Policy." *American Political Science Review* 97(2): 407–423.
- King, Michael R. 2005. "Epistemic Communities and the Diffusion of Ideas: Central Bank Reform in the United Kingdom." *West European Politics* 28(1): 94–123.
- Klomp, Jeroen and Jakob de Haan. 2010. "Inflation and Central Bank Independence: A Meta-Regression Analysis." *Journal of Economic Surveys* 24(4): 593–621.
- Keynes, John Maynard. 1923. *A Tract on Monetary Reform*. London: Macmillan.
- Kydland, Finn E., and Prescott, Edward C. 1977. "Rules Rather than Discretion: The Inconsistency of Optimal Plans." *The Journal of Political Economy* 85(3): 473–492.
- Leung, Man-Kwong, and Vincent Wai-Kwong Mok. 2000. "Commercialization of Banks in China: Institutional Changes and Effects on Listed Enterprises." *Journal of Contemporary China* 9(23): 41–52.
- Lukauskas, Arvid J., and Yumiko Shimabukuro. 2006. "The Non-Linear Process of Institutional Change: The Bank of Japan Reform and Its Aftermath." *Japanese Journal of Political Science* 7(2): 127–152.
- Maes, Ivo, and Lucia Quaglia. 2003. "The Process of European Monetary Integration: A Comparison of the Belgian and Italian Approaches." *National Bank of Belgium Working Paper No. 40*.
- Mangano, Gabriel. 1998. "Measuring Central Bank Independence: A Tale of Subjectivity and of its Consequences." *Oxford Economic Papers* 50. 468–492.
- Marcussen, Martin. 2005. "Central Bank On The Move." *Journal of European Public Policy* 12(5): 903–923.
- Maxfield, Sylvia. 1997. *Gatekeepers of Growth. The International Political Economy of Central Banking in Developing Countries*. Princeton: Princeton University Press.
- McNamara, Kathleen. 2002. "Rational Fictions: Central Bank Independence and the Social Logic of Delegation." *West European Politics* 25(1): 47–76.
- Milesi-Ferretti, Gian Maria. 1995. "The Disadvantage of Tying Their Hands: On the Political Economy of Policy Commitments." *The Economic Journal* 105(433): 1381–1402.
- Mishkin, Frederic S. 2010. *The Economics of Money, Banking and Financial Markets*. Global Edition, 9th edition. Boston: Pearson.
- Mueller, Dennis C. 2003. *Public Choice III*. Cambridge: Cambridge University Press.

- Müller, Wolfgang C., and Kaare Strøm. 1999. *Policy, Office, or Votes? How Political Parties in Western Democracies Make Hard Decisions*. Cambridge: Cambridge University Press.
- Naughton, Barry. 1991. "Why Has Economic Reform Led to Inflation?" *American Economic Review* 81(2): 207–211.
- Naughton, Barry. 2008. "A Political Economy of China's Economic Transition." In *China's Great Economic Transformation*, eds. Loren Brant and Thomas Rawski. Cambridge: Cambridge University Press. 91–135.
- Okun, Arthur M. 1978. "Efficient Disinflationary Policies." *The American Economic Review* 68(2): 348–352.
- Parkin, Michael. 2012. "Central Bank Laws and Monetary Policy Outcomes: A Three Decade Perspective." Presented at the meeting of the American Economic Association, San Diego, January 4, 2013.
- Passacantando, Franco. 1996. "Building an Institutional Framework for Monetary Stability: the Case of Italy (1979–1994)." *BNL Quarterly Review* 196: 83–132.
- Patel, Sucheen. 2008. "An Independent Bank of England. The Political Process in Historical Perspective." *Public Policy and Administration* 23(1): 27–41.
- Pei, Minxin. 1998. "The Political Economy of Banking Reforms in China, 1993–1997." *Journal of Contemporary China* 7(19): 321–350.
- Pempel, T.J. 2010. "Between Pork and Productivity: the Collapse of the Liberal Democratic Party." *The Journal of Japanese Studies* 36(2): 227–254.
- Phillips, Alban William. 1958. "The Relation Between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861–1957". *Economica* 25(100): 283–299.
- Pistoresi, B., F. Salsano, and D. Ferrari. 2011. "Political Institutions and Central Bank Independence Revisited." *Applied Economic Letters* 18(7): 679–682.
- Polillo, Simone, and Mauro F. Guillén. 2005. "Globalization Pressures and the State: The Worldwide Spread of Central Bank Independence." *American Journal of Sociology* 110(6): 1764–1802.
- Quaglia, Lucia. 2004. "Italy's Policy Toward European Monetary Integration: Bringing Ideas Back in?" *Journal of European Public Policy* 11(6): 1096–1111.
- Quaglia, Lucia. 2005. "An Integrative Approach to the Politics of Central Bank Independence: Lessons from Britain, Germany and Italy." *West European Politics* 28(3): 549–568.

- Quaglia, Lucia. 2008. *Central Banking Governance in the European Union. A Comparative Analysis*. London and New York: Routledge. Taylor & Francis Group.
- Reed, Steven R., Ethan Scheiner, and Michael F. Thies. 2012. "The End of LDP Dominance and the Rise of Party-Oriented Politics in Japan." *The Journal of Japanese Studies* 38(2): 353–376.
- Reinhart, Carmen M. and Kenneth S. Rogoff. 2009. *This Time Is Different. Eight Centuries of Financial Folly*. Princeton and Oxford: Princeton University Press.
- Rogoff, Kenneth. 1985. "The Optimal Degree of Commitment to an Intermediate Monetary Target." *The Quarterly Journal of Economics*. 100(4): 1169–1189.
- Sait, Edward. 1938. *Political Institutions: A Preface*. New York: Appleton-Century-Crofts.
- Sarcinelli, Mario. 1995. "Italian Monetary Policy in the '80s and '90s: The Revision of the Modus Operandi." *BNL Quarterly Review* 195: 397–422.
- Shepsle, Kenneth A. 1979. "Institutional Arrangements and Equilibrium in Multidimensional Voting Models." *American Journal of Political Science* 23(1): 27–59.
- Shepsle, Kenneth A. 1989. "Studying Institutions. Some Lessons from the Rational Choice Approach." *Journal of Theoretical Politics* 1(2): 131–147.
- Shepsle, Kenneth A. 1991. "Discretion, Institutions, and the Problem of Government Commitment." In *Social Theory for a Changing Society*, eds. Bourdieu, Pierre and James S. Coleman. Boulder: Westview Press. 245–262.
- Shepsle, Kenneth A. 2006a. "Old Questions and New Answers about Institutions. The Riker Objection Revisited." In *The Oxford Handbook of Political Economy*, eds. Barry Weingast and Donald Wittman. Oxford: Oxford University Press, 1031–1049.
- Shepsle, Kenneth A. 2006b. "Rational Choice Institutionalism." In *The Oxford Handbook of Political Institutions*, eds. R.A.W Rhodes, Sarah A. Binder, and Bert A. Rockman. Oxford: Oxford University Press. 23–38.
- Sieberer, Ulrich, Peter Meißner, Julia F. Keh, and Wolfgang C. Müller. 2016. "Parliamentary Rule Changes in Europe: A Research Program". *Legislative Studies Quarterly* 44(1): 61–88.
- Sieberer, Ulrich, Wolfgang C. Müller, and Maiko I. Heller. 2011. "Reforming the Rules of the Parliamentary Game: Measuring and Explaining Changes in Parliamentary Rules in Austria, Germany, and Switzerland, 1945–2010." *West European Politics* 34(5): 948–75.

- Strøm, Kaare, Wolfgang C. Müller, Torbjörn Bergmann, and Benjamin Nyblade. 2003. "Dimensions of Citizen Control." In *Delegation and Accountability in Parliamentary Democracies*, eds. Kaare Strøm, Wolfgang C. Müller, and Torbjörn Bergmann. Oxford: Oxford University Press. 651–705.
- Tavares, José. 2004. "Does Right or Left Matter? Cabinets, Credibility and Fiscal Adjustments." *Journal of Public Economics* 88(12): 2447–2468.
- Thatcher, Margaret. 1993. *The Downing Street Years*. London: Harper Collins Publishers.
- Thatcher, Mark. 2002. "Analysing Independent Regulatory Agencies in Western Europe: Functional Pressures Mediated by Context." *Swiss Political Science Review* 8(1). 103–110.
- Thatcher, Mark, and Alec Stone Sweet. 2002. "Theory and Practice of Delegation to Non-Majoritarian Institutions." *West European Politics* 25(1): 1–22.
- Tsebelis, George. 1990. *Nested Games. Rational Choice in Comparative Politics*. Berkeley and Los Angeles: University of California Press.
- Tsebelis, George. 2002. *Veto Players. How Political Institutions Work*. Princeton: Princeton University Press.
- Walsh, James I. 1999. "Political Bases of Macroeconomic Adjustment: Evidence from the Italian Experience." *Journal of European Public Policy* 6(1): 66–84.
- Way, Christopher. 2000. "Central Banks, Partisan Politics, and Macroeconomic Outcomes." *Comparative Political Studies* 33(2): 196–224.
- Wickham-Jones, Mark. 2005. "Signaling Credibility: Electoral Strategy and New Labour in Britain." *Political Science Quarterly* 120(4): 653–673.
- Woolley, John T. 1992. Policy Credibility and European Monetary Institutions. In *Euro-Politics. Institutions and Policymaking in the "New" European Community*, ed. Alberta M. Sbragia, Washington: The Brookings Institution.

7. APPENDIX

7.1. List of reforms included in the statistical analysis

Albania (1997)
Argentina (1992)
Armenia (1996)
Armenia (2002)
Azerbaijan (2004)
Belarus (2001)
Belgium (1993)
Bolivia (1995)
Bulgaria (1997)
Chile (1989)
Colombia (1993)
Costa Rica (1996)
Croatia (2001)
Croatia (2002)
Dominican Rep (2002)
Finland (1998)
France (1993)
Greece (1995)
Guatemala (2002)
Honduras (1997)
Hungary (2001)
Indonesia (1999)
Italy (1993)
Japan (1998)
Kazakhstan (1995)
Kazakhstan (2003)
Kenya (1996)
Korea, Republic of (1998)
Kyrgyzstan (1997)
Latvia (1998)
Lithuania (1996)

Macedonia (2002)
Malaysia (2009)
Mexico (1985)
Mexico (1994)
Mongolia (1996)
New Zealand (1990)
Nicaragua (1992)
Norway (2003)
Paraguay (1995)
Peru (1993)
Philippines (1993)
Poland (1997)
Portugal (1995)
Romania (2004)
Romania (1998)
Russia (2002)
Slovakia (1999)
Slovakia (2002)
Slovenia (2002)
South Africa (1989)
Spain (1994)
Sweden (1998)
Switzerland (2003)
Tajikistan (1996)
Thailand (2008)
Turkey (2001)
Ukraine (1999)
United Kingdom (1997)
Uruguay (1995)
Venezuela (1993)

The numbers in parentheses indicate the years in which the reforms went into effect.

7.2. Abstract

7.2.1. English

Central banks are the government agencies responsible for monetary policy. As such, they influence important economic variables like inflation, economic growth and unemployment. Therefore, the question whether central banks are limited to carry out policy decisions by politicians or have the power to decide these themselves is highly relevant. From the 1980s onward, a strong global trend toward more autonomous central banks can be observed. In other words, politicians delegated decision-making power in the field of monetary policy to central bankers. It is somewhat puzzling why politicians decide to give up their ability to influence the economy in the first place. Also, it is unclear why politicians grant higher degree of independence to central banks in some countries than in others.

This study aims to contribute to the understanding of the mechanisms in policy delegation and examines the varying degrees of central bank reforms. Building on a rational choice institutionalist framework, it is assumed that central bank reforms are implemented when the expected benefits from a reform exceed the expected costs associated with the reform. Three specific hypotheses are tested. The statistical analysis shows that (1) economic crises are strongly associated with major changes in central bank legislation. But while the data showed a clear relationship between crises and central bank reforms, the presence of crises does not explain the degree of change in central bank legislation. Furthermore, the results indicate (2) support for the hypothesis that left-wing governments implement stronger central bank reforms to counteract a perceived credibility deficit resulting from standard partisan expectations that left-wing parties put a greater weight on fighting unemployment than inflation while right-wing governments are usually assumed to have contrary preferences. The statistical analysis also finds that (3) governments opt for more far-reaching central bank reforms if those reforms take place at the end of their terms in office, which indicates that politicians try to tie the hands of successors. Taken together, the results of the regression analysis indicate that while the presence of crises is a strong predictor for central bank reforms, its particular content is better explained by political aspects.

Four central bank reforms were studied in more detail. It was shown that the 1997 reform of the Bank of England was mainly driven by credibility considerations. The newly

elected Labour government tried to signal its commitment to a responsible monetary policy to the electorate by granting independence to the central bank. In contrast, the 1992 reform of the Banca d'Italia was mainly a response to the Maastricht Treaty which made independent central banks a prerequisite for joining the European Monetary Union. However, the Italian central bank had already gained much more autonomy in the decade up to the reform. Japan's 1997 central bank reform was triggered by electoral pressures. The government feared that voters would punish it for failures in the Ministry of Finance, and responded by removing the decision-making power of monetary policy from the ministry to the central bank. The 1995 central bank reform in China was a response to soaring inflation rates as a result of more market-oriented reform policies, as the government increasingly viewed inflation as a threat to its legitimacy.

7.2.2. German

Zentralbanken sind jene Regierungsinstitutionen, die für Geldpolitik verantwortlich sind. Als solche beeinflussen sie wichtige ökonomische Variablen wie Inflation, Wirtschaftswachstum und Arbeitslosigkeit. Ob Zentralbanken in der Geldpolitik bloß Entscheidungen von Politikerinnen und Politikern umsetzen oder selbst über Entscheidungsgewalt verfügen, ist daher eine äußerst relevante Frage. Seit den 1980ern ist ein globaler Trend zu unabhängigeren Zentralbanken zu beobachten. Politikerinnen und Politiker delegierten die Entscheidungsgewalt über Geldpolitik zu Notenbankern. Unklar bleibt zunächst, warum politische Akteurinnen und Akteure sich dafür entscheiden, auf ihren Einfluss auf die Volkswirtschaft über das Instrument der Geldpolitik zu verzichten. Weiters ist ungeklärt, warum sich das Ausmaß der Reformen zwischen den Staaten unterscheidet.

Die vorliegende Arbeit beabsichtigt, einen Beitrag zum Verständnis der Mechanismen hinter der Delegation von Entscheidungen in bestimmten Politikfeldern zu leisten und untersucht die sich unterscheidenden Ausmaße von Zentralbankreformen. Aufbauend auf einem theoretischen Rahmen, der auf dem Rational Choice Institutionalismus basiert, wird angenommen, dass Zentralbankreformen dann umgesetzt werden, wenn der erwartete Nutzen der Reform die erwarteten Kosten übersteigt. Dazu werden drei Hypothesen untersucht. Die statistische Analyse zeigt, dass (1) es einen starken Zusammenhang zwischen Zentralbankreformen und Wirtschaftskrisen (Inflations,-

Währungs- oder Banken Krisen) gibt. Das Ausmaß einer Reform wird durch die Präsenz einer Krise jedoch nicht erklärt. Weiters unterstützen die Ergebnisse die Hypothese, dass (2) linksgerichtete Regierungen weitreichendere Zentralbankreformen umsetzen, um einem angenommenen Glaubwürdigkeitsdefizit entgegen zu wirken. Ein solches resultiert aus der etablierten Annahme, dass linksgerichtete Regierungen der Bekämpfung von Arbeitslosigkeit eine höhere Priorität einräumen als Preisstabilität, während bei rechtsgerichteten Regierungen eine umgekehrte Präferenzordnung angenommen wird. Die Ergebnisse zeigen außerdem, dass (3) Regierungen sich für weitreichendere Zentralbankreformen entscheiden, wenn sie sich am Ende einer Legislaturperiode befinden. Dies deutet darauf hin, dass sie den Handlungsspielraum von Nachfolgeregierungen einengen wollen. Zusammenfassend lässt sich sagen, dass die Ergebnisse der Regressionsanalysen demonstrieren, dass Krisen Zentralbankreformen begünstigen, ihr konkretes Ausmaß jedoch stärker von politischen Aspekten geprägt ist.

Vier Reformen wurden genauer beleuchtet. Dabei stellte sich heraus, dass die Reform der Bank of England im Jahr 1997 hauptsächlich von Glaubwürdigkeitsüberlegungen motiviert war. Die neugewählte Labour-Regierung versuchte mit der Reform dem Elektorat ein Bekenntnis zu verantwortungsvoller Geldpolitik vermitteln. Im Gegensatz dazu war die 1992 implementierte Reform der Banca d'Italia hauptsächlich eine Reaktion auf den Vertrag von Maastricht, der eine unabhängige Zentralbank zur Vorbedingung für eine Teilnahme an der europäischen Währungsunion erklärt hatte. Allerdings hatte die italienische Notenbank bereits im Jahrzehnt davor einen deutlichen Zuwachs an Autonomie erfahren. Die Reform der japanischen Notenbank im Jahr 1997 wurde vor allem dadurch ausgelöst, dass die Regierung von den nahenden Wahlen unter Druck gebracht wurde. Sie fürchtete, bei diesen für die Fehler des Finanzministeriums abgestraft zu werden. Daher beschloss sie, dem Ministerium die Entscheidungsgewalt für die Geldpolitik zu entziehen und der Zentralbank Unabhängigkeit zu gewähren. Die 1995 umgesetzte Zentralbankreform in China wiederum war eine Reaktion auf die hohen Inflationsraten, die im Zuge der marktorientierten Wirtschaftsreformen Anfang der 1990er auftraten und von der Regierung als Bedrohung für die eigene Legitimität gesehen wurden.